

PUBLIC REVIEW DRAFT
INITIAL STUDY and NEGATIVE DECLARATION
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CITY OF LAKE FOREST
2013-2021 HOUSING ELEMENT UPDATE
General Plan Amendment 10-13-3602

Lead Agency: City of Lake Forest
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A. Project Description

1. Project title: **2013-2021 Housing Element Update**
2. Lead agency name and address: **City of Lake Forest
25550 Commercentre Dr., Suite 100
Lake Forest, CA 92630**
3. Contact person and phone number: **Cheryl Kuta, AICP, Planning Manager
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4. Project Location: **Citywide**
5. Project Sponsor's Name and Address: **City of Lake Forest Development
Services Department**
6. General plan designation: **Citywide - varies**
7. Zoning: **Citywide - varies**
8. Previous environmental document: **See below**
9. Description of project: **See below**
10. Surrounding land uses and setting: **The Housing Element is a General
Plan policy document and
encompasses the entire City.**
11. Other public agencies whose
approval is required: **State law requires that the City
submit the draft Housing Element to
the California Department of
Housing and Community
Development (HCD) for review, and
that the City Council consider HCD's
comments prior to adoption.**

Overview

California Government Code Section 65302(c) mandates that each city and county shall include a Housing Element in its General Plan, and that the Housing Element be updated periodically to reflect current conditions and legal requirements. State law requires that jurisdictions within the Southern California Association of Governments (SCAG) region update their Housing Elements for the 2013-2021 planning period.

The Housing Element is required to identify and analyze existing and projected housing needs, and include statements of the City's goals, policies, quantified objectives, and programs for the preservation, improvement, and development of housing. In adopting its Housing Element, the City must consider local conditions and context, including economic, environmental, and fiscal factors, as well as community goals as set forth elsewhere in the General Plan.

This Initial Study and Negative Declaration has been prepared to evaluate the impacts of the proposed project as required by the California Environmental Quality Act (CEQA). CEQA requires that public agencies consider the environmental consequences of projects over which they have discretionary authority before taking action on those projects (Public Resources Code [PRC] 21000 et seq.). For this project, the City is the lead agency under CEQA because it has the primary responsibility for approving and implementing the project, and therefore the principal responsibility for ensuring CEQA compliance.

Location, Environmental Setting, and Surrounding Land Uses

The City of Lake Forest is located between the coastal floodplain and the Santa Ana Mountains (Exhibit 1). The western portion of the City is near sea level while the northeastern portion of the City becomes progressively higher and steeper, reaching elevations of up to 1,500 feet. The Santa Ana Mountains can be seen from various points within the City (including major roadways) while views of the Saddleback Valley floor and the Pacific Ocean can be seen from the higher elevations. The Recreation and Resources Element of the City of Lake Forest General Plan states that "Preserving the unique topographic character of the Planning Area (City of Lake Forest) is important for visual quality."

Notable natural features in the City include the foothills of the Santa Ana Mountains and natural water courses. The Whiting Ranch Wilderness Park is a prominent visual feature in the northern portion of the City located generally between the planned communities of Portola Hills and Foothill Ranch. There are five water courses that traverse the City: Aliso Creek, Serrano Creek, Borrego Canyon Wash, and two smaller creeks. While portions of these creeks are channelized for flood control purposes, significant portions of Aliso Creek and Serrano Creek include trails and open space and have a natural/undeveloped character. The City of Lake Forest also has four man-made lakes, three located within residential developments and one in Village Park.

EXHIBIT 1

The City has developed as a series of primarily residential Planned Communities. Development within each Planned Community is designed to be compatible and form a consistent visual image. In older areas of the City, particularly near I-5, residential neighborhoods were not developed as part of Planned Communities and have less architectural and visual consistency. Low-scale (one- to three-story) commercial development is concentrated near Interstate 5 (I-5) and along the primary arterials of El Toro Road, Lake Forest Drive, Bake Parkway and Portola Parkway. Existing sources of night lighting within the City include commercial districts, parking areas, outdoor sports facilities, and roadways.

The City of Lake Forest is generally surrounded by the Cities of Laguna Hills and Laguna Woods to the southwest, Irvine to the northwest, and Mission Viejo to the southeast. The surrounding land uses consist of a mix of residential, commercial, and light industrial. State Route 241 (SR-241) transects Lake Forest in an east-west direction near the City's northern limits. To the west is the confluence of Interstates 5 and 405. The former Marine Core Air Station (MCAS) El Toro, consisting of approximately 3,700 acres, is located along the northwestern boundary of the City. The former MCAS El Toro property, which the City of Irvine annexed in the spring of 2004, is entitled for a variety of uses, including educational facilities, agriculture, a great park, housing, and commercial uses.

Housing Element Contents

The 2013-2021 Housing Element is comprised of the following chapters:

- Introduction and overview of Housing Element content and requirements (Chapter 1);
- Analysis of population, household and employment trends, characteristics of the housing stock, and a summary of current and projected housing needs (Chapter 2);
- Evaluation of resources and opportunities that will facilitate the development and preservation of housing for all economic segments of the community (Chapter 3);
- Review of potential constraints to meeting identified housing needs (Chapter 4);
- A Housing Action Plan to address identified needs, including housing goals, policies and programs (Chapter 5);
- Evaluation of housing accomplishments during the previous planning period (Appendix A);
- Summary of public involvement during the Housing Element update process (Appendix B); and
- Inventory of potential sites for residential development (Appendix C).

Legal Framework for the Housing Element

State law requires that Housing Elements comply with the statutory provisions of California Government Code Section 65580 et seq. The Housing Element is unique among General Plan elements in the extent to which state law prescribes local policies, and the legislature has granted HCD the authority to review local governments' housing elements and issue findings regarding whether, in its opinion, the housing element substantially complies with the requirements of state law. Cities are required to submit draft housing elements to HCD for review prior to adoption, and must also submit adopted elements for review. Failure to adopt a housing element that HCD finds to be in compliance with State law may result in the loss of eligibility for housing and community development grant funds, and cities may be required to prepare more frequent housing element updates in the future.

Relationship of the Housing Element to the General Plan

The Housing Element is one of the State-mandated elements of the General Plan. While the time horizon for a General Plan is often 20 years or more, state law requires housing elements to be updated on a more frequent schedule. The new Housing Element covers the period 2013 – 2021.

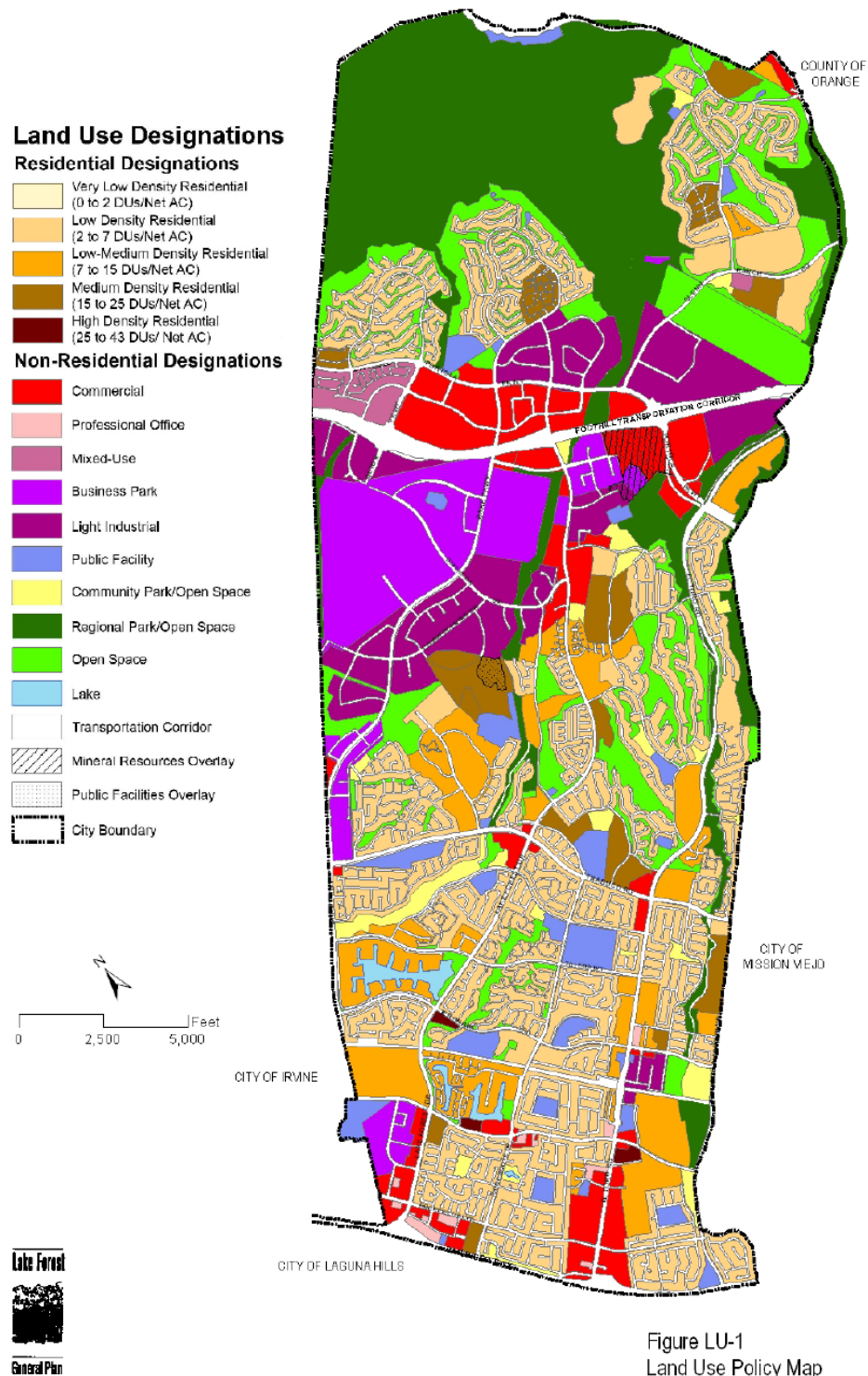
State law also requires all elements of the General Plan to be internally consistent. The Housing Element contains policies and assumptions regarding housing development that are consistent with the land use patterns described in the Land Use Element. The programmatic actions called for in Chapter 5 of the Housing Element would not change the location or intensity of new development anticipated in the Land Use Element (Exhibit 2).

DESCRIPTION

The aim of the proposed project is to adopt the 2013-2021 Housing Element Update consistent with State law. The purpose of the Housing Element Update is to identify the City's existing and projected housing needs and to establish goals and policies to guide City officials in daily decision making in addressing these needs. The goal of providing decent, safe, sanitary and affordable housing to current and future residents of the City is a primary focus of the Housing Element Update. The Housing Element Update also assesses the needs of groups that often require special attention, such as the elderly, large households, single-parents, persons with disabilities, and the homeless.

The Housing Element Update serves as a policy guideline for addressing defined issues which may arise in meeting the housing needs of the community. The Housing Element Update does not: (1) propose any changes in the land uses or in zoning that would result in any inconsistencies with the adopted Land Use Element or with the other General Plan Elements; (2) change the adopted land use and/or development standards included in the Land Use Element; or (3) require any circulation improvements to accommodate the new housing projected under the Housing Element. However, the Housing Element Update includes a program to amend the Zoning Code to remove governmental constraints related to farm employee housing (Program 4). The environmental effects of Program 4 are too speculative to evaluate as part of this Initial Study and Negative Declaration (see CEQA Guidelines Section 15145). Policy options and code language will be studied and presented to the Planning Commission and City Council for consideration within one year of adoption of the Housing Element, appropriate CEQA analysis will be prepared at that time.

EXHIBIT 2



Regional Housing Needs

Housing elements must identify and analyze existing and projected housing needs, effectiveness of the past housing element, constraints to the production of housing, and goals, policies, objectives, and scheduled programs for the preservation, improvement, and development of housing. In addition, a housing element must address its Regional Housing Needs Assessment (RHNA) allocation in terms of number of housing units and housing affordability. The RHNA is allocated by SCAG and is meant to allocate a “fair share” of the region’s existing and forecasted housing needs to each individual jurisdiction, based on population and job growth, housing construction trends, commute patterns, infrastructure constraints, and household formation trends, among other factors.

This Lake Forest Housing Element Update covers the fifth cycle planning period and corresponding RHNA planning cycle:

Table 1
Housing Element and RHNA Planning Periods

Housing Element Update Cycle	Housing Element Planning Period	RHNA Planning Period
Fifth	October 15, 2013 – October 15, 2021	January 1, 2014 – October 31, 2021

To determine whether the City has sufficient land to accommodate its share of regional housing needs for all income groups, the City must identify “adequate sites.” Under State law “adequate sites” are those with appropriate zoning and development standards, with services and facilities, needed to facilitate and encourage the development of a variety of housing for all income levels.

2014-2021 RHNA

The City’s RHNA is 2,727 housing units for the 2014-2021 RHNA planning period. This RHNA is divided into four income and affordability limits: 647 very low, 450 low, 497 moderate, and 1,133 above moderate units. The City’s RHNA is intended to assure that adequate sites and zoning are available to accommodate anticipated housing demand during the RHNA period. The housing allocation by income group is not a construction goal or requirement. The RHNA is a capacity target to ensure that appropriate planning policies and land use regulations are in place to accommodate the City’s share of projected regional growth.

Residential Sites Inventory

California Government Code Section 65583(a)(3) requires Housing Elements to contain an “inventory of land suitable for residential development, including vacant sites and

sites having potential for redevelopment, and an analysis of the relationship of zoning and public facilities and services to these sites.” Compliance with this requirement is measured by the jurisdiction’s ability in providing adequate land with adequate density and appropriate development standards to accommodate the RHNA.

Appendix C of the Housing Element identifies residential sites within four of the City’s five “New Neighborhoods” that have the capacity to accommodate at least 2,727 dwelling units (the City’s RHNA for the 2014-2021 period). Housing Element Programs 1 and 3, which are summarized below, are intended to facilitate and encourage residential construction on sites within these New Neighborhoods. Lake Forest’s New Neighborhoods are part of the City’s Opportunities Study Area (OSA) – a re-zoning effort of over 600 acres of business/industrial use land. The zone changes and development agreements that were approved by the City between 2008 and 2010 allow for approximately 4,000 new homes. All of the residential sites identified in Appendix C of the Housing Element Update were evaluated in the Opportunities Study Program Environmental Impact Report (EIR). The Housing Element does not change allowable land uses, density, or standards for development of these sites.

Housing Element Programs

The Housing Action Plan section of the Housing Element Update is the only portion of the project with potential to impact the environment. All other sections of the Housing Element Update, including the residential sites inventory, provide information and analysis required by statute and do not commit the City to take any action. The Housing Action Plan includes goals and policies aimed to address the following issues:

- Housing Diversity and Opportunities;
- Maintenance, Preservation, and Conservation of Housing;
- Home Ownership; and
- Equal Opportunity

The broadly-worded goals and policies are intended to guide the programs identified in the Housing Element Update and review of new residential development and allocation of housing-related resources.

In addition to goals and policies, the Action Plan includes 14 programs that commit the City to take specific action during the 2013-2021 planning period. Many programs are administrative in nature. Other programs aim to facilitate and encourage the provision of housing and related services for all economic segments of Lake Forest. Some programs are carried over from the previous Housing Element Update and represent actions taken by the City on an ongoing basis, whereas other programs are new to the 2013-2021 Housing Element Update. One program commits the City to future amendment of the Zoning Code to comply with State law. Each proposed Housing Element Update program is summarized below:

Program 1: Land Use Policy, Entitlements, and Development Capacity

Planning and regulatory actions to achieve adequate housing sites are implemented through the Land Use Element, Zoning Code, and implementation of existing development agreements. These regulatory documents provide for a variety of residential types, ranging from lower-density single-family homes to higher-density apartments, condominiums, and mixed-use development. Lake Forest's residential sites inventory consists of over 600 acres of developable land with the capacity to yield nearly 3,900 new units during the planning period. These sites are adequate to meet the City's share of regional housing needs for the 2014-2021 RHNA period. The City will maintain and monitor the residential sites inventory to ensure adequate sites remain to accommodate the RHNA throughout the RHNA period.

This program is modified from a similar program contained in the 2008-2014 Housing Element and commits the City to implement previously-adopted regulatory documents to facilitate the development of land within four of the City's five New Neighborhoods (also known as the OSA). Each of the sites identified in Appendix C of the 2013-2021 Housing Element Update were included in the Opportunities Study Program EIR. This program will not change allowable land uses, density, or standards for development of these sites. The program does not commit the City to approve any specific construction project. Future residential development within the New Neighborhoods/OSA will be subject to site-specific review and approval by the City of Lake Forest.

Program 2: Monitor Residential Capacity (No Net Loss)

The City will monitor the consumption of residential acreage to ensure an adequate inventory is available to meet the City's RHNA obligations. To ensure sufficient residential capacity is maintained to accommodate the RHNA, the City will develop and implement a formal ongoing (project-by-project) evaluation procedure pursuant to Government Code Section 65863. Should an approval of development result in a reduction of capacity below the residential capacity needed to accommodate the remaining need for lower income households, the City will identify and, if necessary, rezone sufficient sites to accommodate the shortfall and ensure "no net loss" in capacity to accommodate the RHNA.

This new program is primarily administrative in nature as it directs City staff to develop and implement a tracking procedure to monitor the development of sites contained in Appendix C of the 2013-2021 Housing Element. If the City determines that the capacity of sites identified in Appendix C is no longer sufficient to accommodate the RHNA through year 2021, the program commits the City to identify alternate sites or rezone properties as required by State law. The City does not anticipate a need to identify alternate sites or rezone property during the 2014-2021 RHNA period. Therefore, the environmental effects resulting from a potential future need to identify alternate sites or rezone properties are too speculative to evaluate as part of this Initial Study and Negative Declaration (see CEQA Guidelines Section 15145).

Program 3: Facilitate Affordable Housing Production

Dissolution of the City's Redevelopment Agency by the State in 2012 eliminated the Low and Moderate Income Housing Fund (LMIHF), formerly the City's primary mechanism for providing direct funding support of affordable housing development. Continuing reductions in federal funding of HUD programs (e.g., Community Development Block Grants [CDBG]) will constrain the City's ability to offer committed funding assistance to future affordable housing even further. With limited funding, the City will rely on the following actions to encourage affordable housing production during the planning period:

- *Affordable Housing Implementation Plans (AHIPs)*: Each of the New Neighborhoods land owners / developers has entered into a development agreement (DA) with the City. The DAs include an Affordable Housing Implementation Plan (AHIP) to facilitate the production of affordable units in conjunction with the development of the OSA projects. The City will monitor the development of the New Neighborhoods projects and include in the annual Housing Element Progress Report to HCD the status of compliance with the AHIPs and the progress toward development of affordable units.
- *Collaborate with Affordable Housing Developers*: Affordable housing developers work to develop, conserve and promote rental and ownership affordable housing. Particularly in relation to senior housing, the affordable housing developer is often, but not always, a local organization interested in developing affordable housing. The affordable housing developer is often involved with what is called "assisted housing", where some type of government assistance (such as Section 8 or Tax Credits) is provided to the individual household to keep rents affordable. An affordable housing developer can help meet the City's goal of incorporating a minimum of 15% affordable units within new residential developments by implementing or assisting with the implementation of programs described in this Element. The City will continue to collaborate with affordable housing developers to identify potential sites, write letters of support to help secure governmental and private-sector funding, and offer technical assistance related to the application of State density bonus provisions.
- *Regulatory Concessions and Incentives*: The City will continue to work with developers on a case-by-case basis to provide State-mandated regulatory concessions and incentives to assist with the development of affordable and senior housing. In a relatively small city like Lake Forest, this is the most effective method of assisting developers, as each individual project can be analyzed to determine which concessions and incentives would be the most beneficial to the project's feasibility. State-mandated regulatory concessions and incentives could include, but are not limited to, density bonuses, parking reductions, fee reductions or deferral, expedited permit processing, and modified or waived development standards. Any requested concessions or incentives would be evaluated on a case-by-case basis while simultaneously working to ensure the project is compatible with the surrounding neighborhood.

This program is modified from a similar program contained in the 2008-2014 Housing Element and commits the City to facilitate affordable housing development by implementing previously-adopted DAs and providing administrative support and regulatory concessions and incentives to affordable housing developers. The incentives and concessions described in this program are mandated by the State of California in Government Code Section 65915 and referenced in Chapter 9.152 of the City of Lake Forest adopted Municipal Code. This program will not change allowable land uses, density, or standards for development sites. The program does not commit the City to approve any specific construction project. Future residential development will be subject to site-specific review and approval by the City of Lake Forest. The environmental effects of implementing the DAs within the New Neighborhoods have been evaluated in the Opportunities Study Program EIR. Although unlikely, a land owner could propose to develop affordable housing outside of the New Neighborhoods. Should the City receive an application for an affordable housing project located outside of the New Neighborhoods, the application would be subject to the General Plan and Zoning Code. The environmental effects of implementing General Plan land use designations have been evaluated in the City of Lake Forest General Plan Master EIR. The environmental effects of offering concessions and incentives, including density bonuses in accordance with State law were considered prior to adoption of the density bonus ordinance. The City found that adopting and implementing the density bonus ordinance as required by State law was exempt from CEQA because it could not have a significant impact on the environment.

Program 4: Farm Employee Housing

The City's Zoning Code includes two districts that allow agricultural uses (A-1 and OS). These zones are located outside of the OSA. Commercial agriculture is permitted by right in the A1 zone and with approval of a Site Development Permit in the OS zone. Pursuant to the California Employee Housing Act, facilities with up to 36 beds or 12 units to board farm workers must be treated as accessory or incidental to agriculture operations. State law also provides that employee housing occupied by six (6) or fewer employees in a single family structure, shall be treated the same as a family dwelling of the same type in the same zone. The City will evaluate provisions for commercial agriculture operations in the A-1 and OS zones (and the related farm worker housing issues) and revise the Zoning Code to address compliance with Sections 17021.5 and 17021.6 of the Health and Safety Code.

The environmental effects of this new program are too speculative to evaluate as part of this Initial Study and Negative Declaration (see CEQA Guidelines Section 15145). Policy options and code language will be studied and presented to the Planning Commission and City Council for consideration within one year of adoption of the Housing Element, appropriate CEQA analysis will be prepared at that time.

Pursuant to State law, employee housing for six or fewer employees is considered a single-family structure and therefore permitted by right in the City. No further CEQA analysis required for an individual home used for such purpose.

Program 5: Monitor Changes in Federal and State Housing, Planning, and Zoning Laws

Although the 2013-2021 Housing Element update did not identify any significant governmental constraints to the development or maintenance of housing in Lake Forest, the City will continue to monitor its development process and zoning regulations to identify and remove constraints to the development of housing. The City will also continue to monitor federal and State legislation that could impact housing and comment on, support, or oppose proposed changes or additions to existing legislation, as well as support new legislation when appropriate. Special attention will be given by the City in the minimizing of governmental constraints to the development, improvement, and maintenance of housing.

This new program is administrative in nature. Should there be a need to modify the General Plan or Zoning Code during the 2013-2021 planning period to comply with a future change in State or federal law, the proposed amendments would be subject to CEQA. The environmental effects of any potential change in local land use regulations that may be required to comply with future changes in State or federal law are too speculative to evaluate as part of this Initial Study and Negative Declaration (see CEQA Guidelines Section 15145).

Program 6: Sites for Homeless Shelters

Homelessness is a chronic problem throughout Southern California. While the majority of the County's homeless are in the older, more urbanized jurisdictions and in the beach communities, current data indicates approximately 25 homeless persons within the City on any given night. In addition, the City has numerous households who may be considered at-risk of becoming homeless by virtue of their limited incomes. It is important for the City to provide and maintain the appropriate zoning mechanisms to accommodate the provision of facilities that serve the homeless population, most of whom are extremely low incomes. The City will provide financial support to non-profit organizations that shelter the homeless (subject to available funding and on a case-by-case basis) and assist non-profit organizations to identify potential sites for homeless shelters.

This program is administrative in nature and has been modified from a similar program contained in the 2008-2014 Housing Element. The program commits the City to support non-profit organizations that shelter the homeless population. As indicated in Table H-38 of the 2013-2021 Housing Element Update, emergency shelters for the homeless may be provided in the M1 zone, which is located outside of the OSA, and emergency shelter proposals would be subject to applicable regulations of the General Plan and Zoning Code. The environmental effects of accommodating emergency shelters with a by-right and ministerial permitting process in the M1 zone was considered prior to

adoption of the ordinance. The City found that adopting and implementing the ordinance as required by State law was not subject to CEQA because it would not have the potential to result in physical changes to the environment directly or indirectly.

Program 7: Transitional and Supportive Housing

The City provided financial assistance to non-profit service agencies to purchase existing housing in the community for use as transitional and supportive housing (subject to available funding and on a case-by-case basis). These facilities help to address the needs of very low and extremely low income persons. Specifically, the City has provided CDBG funding to non-profit organizations for the purchase and operation of condominium units for transitional/supportive and affordable housing. These condominiums will continue to offer transitional/supportive and affordable housing to extremely low income residents through 2030.

This program is administrative in nature and has been modified from a similar program contained in the 2008-2014 Housing Element. The program commits the City to support non-profit organizations that provide transitional and supportive housing. The program allows for funding support to acquire existing housing units and therefore would not result in the construction of new dwelling units. Transitional or supportive housing proposed in Lake Forest would be subject to General Plan and Zoning Code regulations and limited to the zones identified in Tables H-38 and H-39 of the 2013-2021 Housing Element Update. The environmental effects of allowing transitional and supportive housing within Lake Forest in accordance with State law were considered prior to adoption of the ordinance. The City found that adopting and implementing the ordinance as required by State law was not subject to CEQA because it would not have the potential to result in physical changes to the environment directly or indirectly.

Program 8: Coordination with Social Service Agencies

A variety of social services agencies provide housing and supportive services to special needs groups in Lake Forest. Several of these social service agencies receive CDBG funds from the City to help administer these programs. The City determines its CDBG allocations to social service agencies annually based upon applications received, whether the agency provides a priority need in the City's 5-year Consolidated Plan, and if the agency meets Federal HUD regulations. In a typical program year, funding is allocated to nonprofits that serve the following needs of lower income individuals and households (i.e., those earning up to 80% Area Median Income [AMI]): food distribution, housing assistance, services and programs for the elderly and youth, before and after school care programs, services for the disabled (including developmentally disabled), primary health care services, and fair housing advocacy and counseling.

This program is administrative in nature and has been modified from a similar program contained in the 2008-2014 Housing Element. The program commits the City to continue providing administrative and CDBG funding support to social service agencies that serve lower income individuals and households. The support provided by the social

service agencies does not involve the development or improvement of land or structures. This program does not have potential to impact the environment.

Program 9: Rental Assistance

The Housing Choice Voucher rental assistance program extends rental subsidies to extremely low and very low income families and elderly (i.e., those earning up to 50% AMI) who spend more than 30% of their income on rent. The subsidy represents the difference between the excess of 30% of their monthly income and the actual rent. Rent subsidies can be used to pay for mobile home park space rents. Lake Forest will continue to contract with the Orange County Housing Authority (OCHA) to administer the Federal Housing Choice Voucher Program. According to OCHA, approximately 194 Lake Forest resident households received voucher assistance as of March 2013, with another 809 applicants on the waiting list. The City will also support the OCHA's applications for additional voucher allocations and efforts to maintain and expand voucher use in the City.

This program is administrative in nature and commits the City to continue contracting with another public agency that provides direct rental subsidies to qualified lower income individuals and households. The rental subsidies (or vouchers) are used to rent existing dwelling units and will not result in the development or improvement of land. This program does not have potential to impact the environment.

Program 10: Conservation of Existing and Future Affordable Units

In order to meet the housing needs of all economic groups in Lake Forest, the City must develop programs to minimize the loss of housing units available to lower income households. As of April 2013, the City's affordable housing inventory consisted of 264 units with at least another 250 affordable units anticipated during the planning period. Of the existing 264 affordable units, 255 were at risk of converting to market rate rents. Of the at-risk units, 209 are only considered "at risk" because owners have the option to pre-pay bond funding before 2023. Affordability covenants for 38 units in the Crestwood Apartments expire in 2017, 6 units at Bellecour Way could convert to market rate in 2018, and 2 transitional housing units become "at risk" in 2022 and 2023. The City will work with property owners, interest groups and the State and federal governments to implement the following programs on an ongoing basis to conserve its affordable housing stock:

- Monitor Units at Risk: Maintain contact with providers and owners to monitor the status of existing and future affordable units, including the 255 at-risk units.
- Work with Potential Purchasers: Where feasible, provide technical assistance to public and non-profit agencies interested in purchasing and/or managing units at risk.
- Tenant Education: The California Legislature extended the noticing requirement of at-risk units opting out of low income use restrictions to one year. Should a property owner pursue conversion of the units to market rate, the City will ensure

that tenants were properly noticed and informed of their rights and that they are eligible to receive Section 8 vouchers that would enable them to stay in their units.

This program is administrative in nature and has been modified from a similar program contained in the 2008-2014 Housing Element. The program does not commit the City to take action that will result in the development or improvement of land. This program does not have potential to impact the environment.

Program 11: Housing Rehabilitation Loan Program

The City provides housing rehabilitation assistance to lower income homeowners through a loan program for owner-occupied single-family detached and attached homes and mobile home units, which is funded through the City's CDBG program. A zero-interest deferred payment loan of up to \$30,000 is available to households earning up to 80% AMI. A 3% interest loan amortized for a 15 year period is available to those who wish to pay off their loan sooner. Loans of up to \$15,000 are also available to owners of mobile homes. Eligible repairs include roofing, windows, exterior and interior painting, plumbing, electrical, energy/weatherization, garage doors, and other common home repairs, as well as accessibility improvements.

This program has been modified from a similar program contained in the 2008-2014 Housing Element. This program offers CDBG funding assistance to approximately 10 income-qualified households annually through year 2021 for the maintenance and improvement of existing homes. The program will result in positive environmental effects related to aesthetics through exterior improvements and air quality and greenhouse gas emissions through improved energy efficiency. All rehabilitation work requiring a building permit will be subject to General Plan, Zoning Code, and Building Code requirements. The geographic scope of this program will likely be limited to areas of the City located outside of the OSA. Residential development that occurs within the OSA will be new construction and will not likely require rehabilitation by year 2021.

Program 12: Code Enforcement and Neighborhood Preservation

The Code Enforcement and Neighborhood Preservation program implements a comprehensive approach to neighborhood improvement in ten targeted Neighborhood Preservation Areas. Code Enforcement inspectors respond to complaints related to substandard housing, property maintenance, overgrown vegetation, trash and debris, illegal conversions, improper occupancy and other nuisance and zoning complaints. In the past, the City has allocated CDBG funds to sponsor periodic neighborhood clean-up and paint days. As funding permits, the City will consider sponsoring similar neighborhood preservation and revitalization events during the planning period. Code enforcement staff will also continue to inform eligible owners about the City's rehabilitation program (see Program 11).

This program is administrative in nature and has been modified from a similar program contained in the 2008-2014 Housing Element. Rehabilitation work requiring a building permit would be subject to General Plan, Zoning Code, and Building Code requirements. Although code enforcement activities are anticipated to occur within the OSA, the program's primary geographic focus will be on older neighborhoods in Lake Forest.

Program 13: Homebuyer Assistance Programs

A few resources are available to Lake Forest residents. The Mortgage Credit Certificate (MCC) Program, administered by the County of Orange, enables lower and moderate income first-time homebuyers to receive a federal income tax credit of up to 15% of the annual mortgage interest paid. The MCC reduces federal income tax, increases take-home pay, and increases the qualifying loan amount for homebuyers. Program assistance is available only to income-eligible persons and families who have not owned a home in the last three years. The property must be a single-family detached home, condominium, or townhouse. The Southern California Housing Finance Agency (SCHFA) raises funds for mortgage financing through the sale of tax-exempt revenue bonds. The City cooperates with lenders and the County in advertising the availability of the SCHFA program.

This program is administrative in nature and has been modified from a similar program contained in the 2008-2014 Housing Element. The City's involvement is limited to the promotion of non-City programs that provide assistance to income-qualified prospective homebuyers. The program will not result in the development or improvement of land and does not have potential to impact the environment.

Program 14: Fair Housing Services

Lake Forest currently contracts with the Orange County Fair Housing Council (OCFHC) for the provision of fair housing services. Services offered include counseling and information on potential discrimination and landlord/tenant problems, special assistance for ethnic minority and single-headed households (which includes escort services to locate adequate housing), bilingual housing literature and video-tape presentations, day-care services, and housing assistance counseling. The City monitors and attempts to minimize discriminatory housing practices with the assistance of the OCFHC that is annually funded by the City's CDBG. Fair Housing actively counsels residents on landlord/tenant issues to help minimize landlord and housing acquisition policies that utilize discriminatory practices. In addition to providing educational workshops to our residents, the organization advocates fair housing rights on behalf of residents. The City will continue to contract with a fair housing service provider to provide fair housing services, maintain the link on the City website providing information about fair housing services, and participate in the Regional Analysis of Impediments to Fair Housing Choice and work to mitigate impediments identified in the study.

This program is administrative in nature and has been modified from a similar program contained in the 2008-2014 Housing Element. The program commits the City to continue providing administrative and CDBG funding support to a non-profit fair housing service provider, distributing fair housing information, and participating in a regional effort to identify impediments to fair housing choice. These actions do not involve the development or improvement of land or structures. Therefore, this program does not have potential to impact the environment.

The Project in CEQA Context

The Housing Element Update (the project) is a policy-level document that is consistent with existing City of Lake Forest General Plan land use designations and densities. The environmental impacts associated with residential development under General Plan land use designations and corresponding Zoning Code development standards were considered as part of the following certified EIRs:

1. City of Lake Forest General Plan, Master Environmental Impact Report, June 1994 (SCH# 94021039).
2. City of Lake Forest Opportunities Study, Program Environmental Impact Report, May 2008 (SCH#2004071039).

The EIRs listed above can be viewed at City of Lake Forest, Development Services Department, 25550 Commercentre Drive, Suite 100, Lake Forest, CA 92630. The Opportunities Study Program EIR can also be downloaded from the following website: http://www.lakeforestca.gov/depts/ds/planning/op_study/peir.asp.

Tiering

This Initial Study and Negative Declaration incorporates by reference and tiers from these previously adopted and certified CEQA documents pursuant to Public Resources Code Sections 21068.5 and 21093-21094, CEQA Guidelines Section 15183, and the City of Lake Forest's Local Guidelines for Implementing CEQA. "Tiering" refers to using the analysis of general matters contained in a previously certified broader EIR in later CEQA documents prepared for narrower projects. The later CEQA document may incorporate by reference the general discussions from the broader EIR and may concentrate solely on the issues specific to the later project.

As part of this Initial Study and Negative Declaration, the City conducted a review of mitigation measures contained in the General Plan Master EIR and the Opportunities Study Program EIR. The mitigation measures contained in those certified EIRs remain valid and applicable to future residential development in Lake Forest, with the following exceptions and modifications to the General Plan Master EIR mitigation measures:

- Mitigation Measure (MM) Air Quality 4 is superseded by the analysis and related mitigation measures in the Opportunities Study Program EIR;

- MM Noise 6 is currently implemented through provisions of the 2010 Building Code; and
- MM Energy 4 is currently implemented through provisions of the 2010 Building Code.

These three measures are directly related to residential development (Air Quality 4) or deal with updates to existing residential (Noise 6 and Energy 4) which could apply to older homes or units which are acquired for affordable housing. Each of these measures is superseded by policies or programs implemented subsequent to adoption of the General Plan Master EIR.

Tiering promotes the construction of needed housing and other development projects by (1) streamlining regulatory procedures, (2) avoiding repetitive discussions of the same issues in successive EIRs, and ensuring that CEQA documents prepared for later projects which are consistent with a previously approved policy, plan, program, or ordinance concentrate upon environmental effects which may be mitigated or avoided in connection with the decision on a later project. Tiering is appropriate when it helps a public agency to focus upon the issues ripe for decision at each level of environmental review and in order to exclude duplicative analysis of environmental effects examined in previous EIRs.

Although the proposed project is intended to encourage and facilitate the development of housing through the 2013-2021 planning period, specific future development projects are subject to regulations of the General Plan, performance standards and permitting processes of the City's Municipal Code, including the Zoning Code, CEQA review of each proposed project, and applicable mitigation measures contained in the CEQA documents listed above.

Speculative Impacts

Although the Housing Element Update includes programs that commit the City to a future Zoning Code amendment to comply with State law regarding farmworker housing, this future amendment is conceptual in nature. The City must study the range of compliance options that are available under State law and has until one year after adoption of the Housing Element to complete the amendment. Evaluation of impacts at this time is too speculative to include in this Negative Declaration (see CEQA Guidelines Section 15145). This potential future amendment to the Zoning Code will undergo separate CEQA review at the time the Zoning Code amendment is defined.

B. Environmental Factors Potentially Affected

The environmental factors listed below that are checked indicate that the proposed project would result in environmental effects that are either "Potentially Significant" or "Less Than Significant With Mitigation".

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Agriculture Resources	<input type="checkbox"/> Air Quality
<input type="checkbox"/> Biological Resources	<input type="checkbox"/> Cultural Resources	<input type="checkbox"/> Geology/Soils
<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Hazards & Hazardous Materials	<input type="checkbox"/> Hydrology/Water Quality
<input type="checkbox"/> Land Use/Planning	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Noise
<input type="checkbox"/> Population/Housing	<input type="checkbox"/> Public Services	<input type="checkbox"/> Recreation
<input type="checkbox"/> Transportation/Traffic	<input type="checkbox"/> Utilities/Services Systems	<input type="checkbox"/> Mandatory Findings of Significance

DETERMINATION:

On the basis of this initial evaluation:

<input checked="" type="checkbox"/>	No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous approved ND or MND or certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, the previously adopted ND or MND or previously certified EIR adequately discusses the potential impacts of the project without modification.
<input type="checkbox"/>	No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous approved ND or MND or certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, the previously adopted ND, MND or previously certified EIR adequately discusses the potential impacts of the project; however, minor changes require the preparation of an ADDENDUM.
<input type="checkbox"/>	Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous ND, MND or EIR due to the involvement of significant new environmental effects or a substantial increase in the severity of previously

	identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). However all new potentially significant environmental effects or substantial increases in the severity of previously identified significant effects are clearly reduced to below a level of significance through the incorporation of mitigation measures agreed to by the project applicant. Therefore, a SUBSEQUENT MND is required.
<input type="checkbox"/>	Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous environmental document due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). However, only minor changes or additions or changes would be necessary to make the previous EIR adequate for the project in the changed situation. Therefore, a SUPPLEMENTAL EIR is required.
<input type="checkbox"/>	Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous environmental document due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, a SUBSEQUENT EIR is required.

Signed: _____

Date: _____

Name: Cheryl Kuta, AICP
Title: Planning Manager

For: City of Lake Forest

C. Evaluation of Environmental Impacts

Introduction

In assessing the environmental impacts of the 2013-2021 Housing Element update it should be recognized that the location, intensity and design of development projects are controlled primarily by the Land Use Element of the General Plan, the Zoning Code and planned community regulations. The Housing Element is a policy document that reflects and anticipates development as described in other City plans and ordinances. No changes to the allowable intensity, quantity or location of new housing development are proposed in the Housing Element. In the case of farmworker housing, the Housing Element identifies a need for changes to land use policies or regulations that the City intends to implement; however, those changes will require additional study and, an amendment to the Zoning Code prior to implementation within one year of adoption of the Housing Element.

The proposed Code amendment regarding farmworker housing is required by State law. This future Code amendment will be subject to a subsequent public review and approval process that includes appropriate CEQA documentation when the amendment is initiated by the City. The specific details of the Zoning Code change will be subject to a subsequent public review and approval process that includes CEQA analysis. While this Initial Study and Negative Declaration describes the general characteristics and potential impacts associated with development anticipated in the Housing Element, specific analysis of the potential impacts of future developments cannot be conducted until detailed development plans are prepared.

Although no specific projects are proposed as part of the 2013-2021 Housing Element update, Appendix C of the Housing Element identifies residential sites within four of the City's five "New Neighborhoods" that have the capacity to accommodate the City's share of the regional housing need (i.e., the RHNA). All of the residential sites identified in Appendix C of the Housing Element Update were evaluated in the Opportunities Study Program EIR. The Housing Element does not change allowable land uses, density, or standards for development of these sites. Future residential development, maintenance, and improvement activities located outside of the New Neighborhoods are subject to the General Plan and Municipal Code. The General Plan Master EIR evaluated the environmental impacts of implementing General Plan policies and programs related to the development, maintenance, and improvement of housing in areas of Lake Forest located outside of the planning area for the Opportunities Study Program EIR.

Impact Evaluation

- 1) A finding of "No New Impact/No Impact" means that the potential impact was fully analyzed and/or mitigated in the prior CEQA document and no new or different impacts will result from the proposed activity. A brief explanation is required for all answers except "No New Impact/No Impact" answers that are adequately

supported by the information sources a lead agency cites in the parentheses following each question. A "No New Impact/No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No New Impact/No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

- 2) A finding of "New Mitigation is Required" means that the project have a new potentially significant impact on the environment or a substantially more severe impact than analyzed in the previously approved or certified CEQA document and that new mitigation is required to address the impact.
- 3) A finding of "New Potentially Significant Impact" means that the project may have a new potentially significant impact on the environment or a substantially more severe impact than analyzed in the previously approved or certified CEQA document that cannot be mitigated to below a level of significance or be avoided.
- 4) A finding of "Reduced Impact" means that a previously infeasible mitigation measure is now available, or a previously infeasible alternative is now available that will reduce a significant impact identified in the previously prepared environmental document.
- 5) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 6) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analyses Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis. Describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the proposed action.
 - c) Infeasible Mitigation Measures. Since the previous EIR was certified or previous ND or MND was adopted, discuss any mitigation measures or alternatives previously found not to be feasible that would in fact be

feasible or that are considerably different from those previously analyzed and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternatives.

- d) Changes in Circumstances. Since the previous EIR was certified or previous ND or MND was adopted, discuss any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause a change in conclusion regarding one or more effects discussed in the original document.
- 7) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 8) Supporting Information Sources. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 9) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 10) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question;
 - b) differences between the proposed activity and the previously approved project described in the approved ND or MND or certified EIR; and
 - c) the previously approved mitigation measure identified, if any, to reduce the impact to less than significance.

ENVIRONMENTAL CHECKLIST

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
1. Aesthetics				
<i>Would the project:</i>				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings? 1. Does the project exceed the allowed height or bulk regulations, or exceeds the prevailing height and bulk of existing structures? 2. Is the project proposed to have an architectural style or to use building materials that will be in vivid contrast to an adjacent development where that development had been constructed adhering to a common architectural style or theme; 3. Is the project located on a visually prominent site and, due to its height, bulk, architecture or signage, will be in vivid contrast to the surrounding development or environment degrading the visual unity of the area? 4. Does the project include unscreened outdoor uses or materials? 5. Does the project result in the introduction of an architectural feature or building mass that conflicts with the character of the surrounding development?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Will the project create a new source of substantial night light that would result in "sky glow" (i.e. illumination of the night sky in urban areas) or "spill light" (i.e. light that falls outside of the area intended to be lighted) onto adjacent sensitive land uses.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The General Plan Master EIR and Opportunities Study Program EIR analyzed potential aesthetic and visual resource impacts resulting from the buildout of the City of Lake Forest consistent with General Plan land use designations and elements and zoning districts. The certified EIRs found that most aesthetic impacts would be reduced to a level of less than significant through implementation of

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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mitigation measures listed on pages 5.13-4 and 5.13-5 of the General Plan Master EIR and page 3.1-57 of the Opportunities Study Program EIR. The Opportunities Study Program EIR found that impacts related to light and glare would remain significant and unavoidable in spite of the implementation of all feasible mitigation measures. The City Council adopted a Statement of Overriding Considerations for these significant and unavoidable impacts pursuant to CEQA Guidelines Section 15093. The 2013-2021 Housing Element Update relies on existing land use designations, zoning districts, and is consistent with all other General Plan elements. Therefore, it could not increase the significance of impacts identified in these prior certified EIRs.

Impact Discussion:

- a) **No New Impact.** The City of Lake Forest General Plan does not designate any scenic vistas. The Opportunities Study PEIR evaluated the effects of future residential development on non-designated scenic vistas within the OSA, including views of the Santa Ana Mountains and Whiting Ranch Wilderness Park and determined that all impacts would be less than significant. Therefore, residential development that is consistent with the General Plan, OSA development agreements for the New Neighborhoods, and as listed in the Housing Element will not have a significant impact on scenic vistas. No new impacts will occur.
- b) **No Impact.** There are no State-designated scenic highways or State highways that are eligible for designation within the City or vicinity of Lake Forest.¹ Therefore, the Housing Element Update will not impact scenic resources, including trees, rock outcroppings, and historical buildings, within a State scenic highway. No impact will occur.
- c) **No New Impact.** The Housing Element Update itself does not create physical residential growth but only identifies available sites that are suitable to accommodate 2,727 new dwellings through Year 2021. As it does not entitle or confer development rights, the project would not: (1) exceed allowable height or bulk regulations, or exceed the prevailing height and bulk of existing structures; (2) have an architectural style or use building materials that will be in vivid contrast to an adjacent development; (3) be located on a visually prominent site and, due to its height, bulk, architecture or signage, will be in vivid contrast to the surrounding development or environment degrading the visual unity of the area; (4) include unscreened outdoor uses or materials; or (5) result in the introduction of an architectural feature or building mass that conflicts with the character of surrounding development. However, the residential sites identified in Appendix C of the 2013-2021 Housing Element are currently designated for residential development pursuant to the General Plan land use designations and zoning districts. Compliance with General Plan Master EIR and Opportunities Study Program EIR mitigation measures, as well as mitigation measures resulting from future project-level CEQA review, would reduce potential impacts relating to degrading the visual character of the site or surrounding area. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in the previously identified and certified EIRs. No new impacts will occur.
- d) **No New Impact.** Development of projects consistent with General Plan land use designations would create new sources of light and glare in the City. As dwelling units are constructed, greater intensity and density of development would result in increased light and glare in the City due to exterior lighting, lighting of streets and walkways, and interior lighting that could be visible from the outside of residences. The Opportunities Study Program EIR found that development within the OSA, which includes all of the sites listed in Appendix C of the 2013-2021 Housing Element Update, would create a new source of substantial light or glare. The impact was found

¹ http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
to be significant and unavoidable despite incorporation of mitigation measures MM 3.1-1 through MM 3.1-4 listed on page 3.1-57 of the Opportunities Study Program EIR. Future development would be subject to the City's development standards, existing Master/Program EIR mitigation measures, and project-level environmental review to adequately address, and mitigate if necessary, any light or glare impacts that may result from a site specific design proposal. Compliance with City development standards and future project-level CEQA mitigation measures will reduce light and glare impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in these prior certified Master/Program EIRs. No new impact will occur.				

- e) **No New Impact.** Refer to response 1(d). The project is a policy document that does not entitle or confer development rights. However, residential development that is consistent with General Plan land use designations would create new sources of light and glare in the City. As dwelling units are constructed, greater intensity and density of development would result in increased light and glare in the City due to exterior lighting, lighting of streets and walkways, and interior lighting that could result in "sky glow" or "spill light." Future development would be subject to the City's development standards, existing Master/Program EIR mitigation measures, and project-level environmental review to adequately address, and mitigate if necessary, any light or glare impacts that may result from a site specific design proposal. Compliance with City development standards and future project-level CEQA mitigation measures will reduce light and glare impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in these prior certified Master/Program EIRs. No new impact will occur.

2. Agriculture Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Issues		New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
51104(g))?					
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e)	Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The Opportunities Study Program EIR analyzed potential agricultural resource impacts resulting from the buildout of the OSA or New Neighborhoods consistent with applicable development agreements. The certified EIR found three significant and unavoidable impacts to agricultural resources. Specifically, the Program EIR concluded that development of the OSA would result in the conversion of Prime and Unique Farmland to nonagricultural uses, conflict with existing zoning for agricultural use, and result in other changes that could result in the conversion of Farmland to a nonagricultural use. The Program EIR discussed potential mitigation measures; however, determined potential measures to be infeasible. The City Council adopted a Statement of Overriding Considerations for these significant and unavoidable impacts pursuant to CEQA Guidelines Section 15093. The 2013-2021 Housing Element Update relies on existing land use designations, zoning districts, and is consistent with all other General Plan elements. Therefore, it could not increase the significance of impacts identified in the certified Opportunities Study Program EIR.

Impact Discussion:

- a) **No New Impact.** Development of land consistent with General Plan land use designations and zoning districts would convert Prime Farmland or Unique Farmland to non-agricultural use. These impacts were analyzed in the Opportunities Study Program EIR and found to be significant and unavoidable. The 2013-2021 Housing Element Update relies on existing land use designations and zoning districts and, therefore, would not create new, or increase the significance of, impacts identified in the Opportunities Study Program EIR. No new impact will occur.
- b) **No New Impact.** There are no Williamson Act contracts on any lands identified in the Sites Inventory (Appendix C of the 2013-2021 Housing Element). In addition, all of the sites identified in the Sites Inventory have existing residential General Plan and zoning designations and, given the existing urbanized nature of the City and planned urban development of the OSA, future residential development in Lake Forest will not conflict with land zoned for agricultural use. No impact will occur.
- c) **No New Impact.** All sites identified in the Sites Inventory (Appendix C of the 2013-2021 Housing Element) to meet the RHNA have existing residential zoning designations. The surrounding areas are not used as forest land or timberland. There are no zoning districts in the City for forest land or timberland. No impact will occur.
- d) **No New Impact.** All sites identified in the Sites Inventory (Appendix C of the 2013-2021 Housing Element) to meet the RHNA have existing residential zoning designations and are not located within forest land. Accordingly, the Housing Element Update would not result in the loss of forest land or conversion of forest land to non-forest use. No impact will occur.
- e) **No New Impact.** Development of land consistent with General Plan land use designations and

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
zoning districts would create changes in the existing environment, which, due to their location or nature, could result in the conversion of farmland to non-agricultural uses. However, there is no forest land within the City. Impacts related to the conversion of farmland to non-agricultural uses were analyzed in the Opportunities Study Program EIR and found to be significant and unavoidable. The 2013-2021 Housing Element Update relies on existing land use designations and zoning districts and, therefore, would not create new or increase the significance of impacts identified in the Opportunities Study Program EIR. No new impact will occur.				

3. Air Quality

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The General Plan Master EIR and Opportunities Study Program EIR analyzed potential air quality impacts resulting from the buildout of the City of Lake Forest consistent with General Plan land use designations and elements and zoning districts. Both certified EIRs identified significant and unavoidable air quality impacts, despite incorporation of mitigation measures listed on pages 5.2-10 to 5.2-12 of the General Plan Master EIR² and pages 3.3-29 and 3.3-30 of the Opportunities Study Program EIR. Specifically, the General Plan Master EIR found a significant and unavoidable impact related to the generation of pollutants that will impact air quality in the South Coast Air Basin, which fails to meet State and federal air quality standards. The Opportunities Study Program EIR found that impacts related to exposure of sensitive receptors to substantial pollutant concentrations, and cumulatively considerable net increases of criteria pollutants in the South Coast Air Basin, which is in nonattainment under an applicable federal or State ambient air quality standard, would be significant and unavoidable. The City Council adopted a Statement of Overriding Considerations for these significant and unavoidable impacts pursuant to CEQA Guidelines Section 15093. The 2013-2021 Housing Element Update relies on existing land use designations, zoning districts, and is consistent with all other General Plan elements. Therefore, it could not increase the significance of impacts identified in these prior certified EIRs.

² Mitigation Measure Air Quality 4 is superseded by the analysis and related mitigation measures in the Opportunities Study Program EIR.

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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Impact Discussion:

- a) **No New Impact.** The City of Lake Forest lies in the South Coast Air Basin (SoCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The air quality plan in effect in the SoCAB is the SCAQMD's 2012 Air Quality Management Plan (AQMP). The regional emissions inventory for the SoCAB is compiled by the SCAQMD and SCAG. Regional population, housing, and employment projections developed by SCAG, which are based on the land use designations of the City's General Plan, form, in part, the foundation for the emissions inventory of the AQMP. Projects that are consistent with the growth anticipated by the City's General Plan are therefore consistent with AQMP emissions assumptions.

The 2013-2021 Housing Element Update identifies sites for development that have capacity to accommodate the City's fair share of the regional housing need through Year 2021. Future development capacity of these sites, as presented in the 2013-2021 Housing Element Update, is calculated using density allowed under General Plan and use designations. Since the housing assessment in the RHNA is determined by SCAG, any future development of vacant sites would accommodate increases in population based on SCAG's demographic projections. The project is consistent with the AQMP because it is based on demographic projections for the City of Lake Forest from which SCAQMD creates the regional emissions inventory. Therefore, no impact will occur.

- b) **No New Impact.** SCAQMD's SoCAB is a nonattainment area for ozone and particulate matter. Local levels of particulate matter are high enough that excessive contributions from new sources could contribute to a projected air quality violation. The 2012 AQMP establishes the strategy to reduce emissions through regulatory controls.

The 2013-2021 Housing Element Update is a policy-level document that is consistent with General Plan land use designations and zoning districts. No specific development is proposed. Adoption of the Housing Element Update will, therefore, not directly result in any pollutant emissions. Accordingly, the proposed project would not directly violate any air quality standard or contribute substantially to an existing or projected air quality violation.

The Housing Element Update establishes City direction for facilitating housing development pursuant to adopted land use plans and as required by State law. Residential development (on land currently planned for such uses and at existing allowable density) that is facilitated by adoption and implementation of Housing Element Update programs has the potential to result in pollutant emissions. However, the environmental impacts associated with this housing growth was analyzed in the General Plan Master EIR and Opportunities Study Program EIR and determined to be significant and unavoidable despite the incorporation of mitigation measures. Any future development of sites identified in the Housing Element Update will comply with all SCAQMD requirements, as well as any mitigation measures required as a result of project-level CEQA analysis.

The 2013-2021 Housing Element Update relies on existing land use designations and zoning districts and, therefore, would not create new or increase the significance of impacts identified in the General Plan Master EIR and Opportunities Study Program EIR. No new impact will occur.

- c) **No New Impact.** Refer to responses 3(a) and 3(b). The regional emissions inventory for the SoCAB is compiled by the SCAQMD and SCAG. Regional population, housing, and employment projections developed by SCAG are based on the land use designations of the City's General Plan and form, in part, the foundation for the emissions inventory of the AQMP.

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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The AQMP considers the cumulative contributions of development throughout the region and establishes a strategy to reduce emissions through regulatory controls. The proposed 2013-2021 Housing Element Update relies on General Plan land use designations and is consistent with SCAG's regional growth projections. Therefore, adoption of the 2013-2021 Housing Element Update will not result in a cumulatively considerable net increase of ozone or particulate matter. No impact will occur.

- d) **No New Impact.** The City's housing needs will be accommodated on land that is currently zoned for residential use. Construction activities for residential projects will generate pollutant emissions, including but not limited to site grading, operation of construction equipment, and vehicle activities. The future housing units will generate pollutant stationary and mobile source emissions due to uses of stationary equipment, new vehicular trips, on-site power and natural gas consumption, etc.

Environmental impacts associated with exposing sensitive receptors to substantial pollutant concentrations was analyzed at the program level in the Opportunities Study Program EIR and determined to be significant and unavoidable despite mitigation incorporation. The 2013-2021 Housing Element Update relies on existing land use designations and zoning districts and additional project-level CEQA review, as appropriate, will occur prior to development. Therefore, adoption of the Housing Element Update would not create new impacts or increase the significance of impacts identified in the Opportunities Study Program EIR. No new impact will occur.

- e) **No New Impact.** Odors are one of the most obvious forms of air pollution. Although offensive odors seldom cause physical harm, they can be a nuisance. Most people determine an odor to be offensive (objectionable) if it is sensed longer than the duration of a human breath, typically two to five seconds. The SCAQMD CEQA handbook states that land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding.³ Because the project involves policy planning for residential uses, and does not authorize development of specific site, no odor impacts would result from implementation of the project.

Nevertheless, odor impacts of site specific development will be evaluated as projects are proposed by individual applicants. Construction activities associated with residential projects consistent with General Plan land use designations may generate objectionable odors from heavy-duty equipment exhaust or from application of paint and asphalt. All new development would be subject to compliance with standards established for the SCAQMD for odor control. Projects would require consistency with SCAQMD Rule 402, Public Nuisance, which prohibits the discharge of air contaminants or other materials (including odors), which can cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public at large.⁴ The Opportunities Study Program EIR evaluated odor impacts at the program level and found impacts to be less than significant. Site specific development proposals would be analyzed individually to evaluate the potential creation of objectionable odors. If necessary, project-specific mitigation would be required to reduce potential odor impacts. No new impact will occur.

³ <http://www.aqmd.gov/ceqa/oldhdbk.html>

⁴ <http://www.aqmd.gov/rules/reg/reg04/r402.pdf>

Environmental Issues		New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
4. Biological Resources <i>Would the project:</i>					
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The General Plan Master EIR and Opportunities Study Program EIR analyzed potential biological resource impacts resulting from the buildout of the City of Lake Forest consistent with General Plan land use designations and elements and zoning districts. The certified EIRs found that all biological resource impacts would be reduced to a less than significant level through implementation of mitigation measures listed on pages 5.4-9 and 5.4-10 of the General Plan Master EIR and pages 3.4-45 through 3.4-48 of the Opportunities Study Program EIR. The 2013-2021 Housing Element Update relies on existing land use designations, zoning districts, and is consistent with all other General Plan elements. Therefore, it could not increase the significance of impacts identified in these prior certified EIRs.

Impact Discussion:

- a) **No New Impact.** Although much of the City is developed and devoid of native habitat, large areas of Lake Forest are currently undeveloped and contain plant and animal species that could be classified as a candidate, sensitive, or special status and regulated by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. The Housing Element Update

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
<p>itself does not create physical residential growth but only identifies available sites that are suitable to accommodate 2,727 new dwellings through Year 2021. These sites are currently undeveloped and designated for residential uses pursuant to the General Plan land use designations and zoning. Compliance with General Plan Master EIR and Opportunities Study Program EIR mitigation measures, as well as mitigation measures resulting from future project-level CEQA review, would reduce potential biological resource impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in these previously identified EIRs. No new impact will occur.</p>				
<p>b) No New Impact. Refer to response 4(a). Portions of Lake Forest are currently undeveloped and could contain riparian habitat or other sensitive natural communities identified by the California Department of Fish and Wildlife; U.S. Fish and Wildlife Service; or in local or regional plans, policies, and regulations. Future residential development could impact these resources; however, compliance with existing mitigation measures General Plan Master EIR and Opportunities Study Program EIR, as well as mitigation measures resulting from future project-level CEQA review, would reduce potential biological resource impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in these previously identified EIRs. No new impact will occur.</p>				
<p>c) No New Impact. Refer to responses 4(a-b). Portions of Lake Forest are currently undeveloped and could contain federally protected wetlands as defined by Section 404 of the Clean Water Act. Future residential development could impact these resources; however, compliance with existing mitigation measures in the General Plan Master EIR and Opportunities Study Program EIR, as well as mitigation measures resulting from future project-level CEQA review, would reduce potential biological resource impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in these previously identified EIRs. No new impact will occur.</p>				
<p>d) No New Impact. Refer to responses 4(a-c). Portions of Lake Forest are currently undeveloped and could function as a wildlife corridor or nursery site for native resident wildlife species. Future residential development could impede the movement of native resident wildlife species; however, compliance with existing mitigation measures in the General Plan Master EIR and Opportunities Study Program EIR, as well as mitigation measures resulting from future project-level CEQA review, would reduce potential biological resource impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in these prior previously identified EIRs. No new impact will occur.</p>				
<p>e) No New Impact. The City of Lake Forest does not have a tree preservation ordinance. The Lake Forest General Plan establishes guidelines intended to reduce impacts and protect sensitive biological resources. The most pertinent policy is Policy 2.1, which requires that the City conserve and protect natural plant and animal communities including those supporting rare and endangered species, riparian and wetlands habitat, and movement corridors. The City participates in the Central and Coastal Orange County Natural Community Conservation Program/Habitat Conservation Program (NCCP/HCP), which is the main measure of compliance with Policy 2.1. The Opportunities Study Program EIR mitigation measures MM 3.4-1 through MM 3.4-5 requires the City to conserve and protect natural plant and animal communities, consistent with General Plan Policy 2.1. Successful implementation of these mitigation measures when specific development projects are proposed is expected to allow compliance with the General Plan policies and the Central/Coastal NCCP and reduce project-level impacts.</p>				

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in the Opportunities Study Program EIR. No new impact will occur.

- f) **No New Impact.** Refer to responses 4(e). Although the City is contained within the planning area for the Central and Coastal Orange County NCCP/HCP, the parcels identified in the residential sites inventory (Appendix C of the 2013-2021 Housing Element) are outside the Reserve System implemented by the NCCP/HCP. Adoption and implementation of the Housing Element Update would not conflict with provisions of the NCCP/HCP. No impact will occur.

5. Cultural Resources <i>Would the project:</i>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The General Plan Master EIR and Opportunities Study Program EIR analyzed potential cultural resource impacts resulting from the buildout of the City of Lake Forest consistent with General Plan land use designations and elements and zoning districts. The certified EIRs found that all cultural resource impacts would be reduced to a less than significant level through implementation of mitigation measures listed on pages 5.1-11, 5.15-5, and 5.15-16 of the General Plan Master EIR, and pages 3.5-13 and 3.5-14 of the Opportunities Study Program EIR and compliance with statutory and regulatory requirements. The 2013-2021 Housing Element Update relies on existing land use designations, zoning districts, and is consistent with all other General Plan elements. Therefore, it could not increase the significance of impacts identified in these previously identified EIRs.

Impact Discussion:

- a) **No Impact.** Lake Forest is home to Heritage Hill Historical Park. Several historical structures have been relocated to the park and are preserved. No other structures or resources in the City have been identified as eligible or potentially eligible for listing on the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR). No impact will occur.
- b) **No New Impact.** As indicated in Figure 5-37 on page 5.15-2 of the General Plan Master EIR, much of the City has been identified as a “potentially sensitive archaeological area.” Future residential development could cause a substantial adverse change in the significance of an archaeological resource; however, compliance with existing mitigation measures in the General Plan Master EIR and Opportunities Study Program EIR, as well as mitigation measures resulting from future project-level CEQA review and compliance with State CEQA Guidelines Section 15064.5, would reduce potential impacts to archaeological resources. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in these previously identified EIRs. No new impact will

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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occur.

- c) **No New Impact.** As indicated in Figure 5-5 on page 5.1-8 of the General Plan Master EIR, much of the City has been identified as a “sensitive paleontological area” and the geologic formations underlying Lake Forest are known to contain paleontological resources. As with archaeological resources, ground disturbing construction activities associated with future residential development could potentially affect these resources. However, in addition to conforming to General Plan policies, implementation of General Plan Master EIR and Opportunities Study Program EIR mitigation measures and future project-specific mitigation measures (if any) would reduce impacts to paleontological resources. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in these General Plan Master EIR and Opportunities Study Program EIR. No new impact will occur.
- d) **No New Impact.** There are no known human remains on the vacant sites identified in the Residential Sites Inventory (Appendix C of the 2013-2021 Housing Element Update). However, future grading activities from housing development consistent with General Plan land use designations could uncover previously unknown human remains. Future residential development will undergo site-specific CEQA analysis and projects with potential to impact cultural resources, including human remains, will be required to comply with mitigation measures related to protection of human remains.

If human remains were found during construction, those remains would require proper treatment, in accordance with applicable laws. California Health and Safety Code sections 7050.5-7055 describe the general provisions for human remains. Specifically, Health and Safety Code section 7050.5 describes the requirements if human remains are accidentally discovered during excavation of a site. As required by State law, the requirements and procedures set forth in section 5097.98 of the California PRC would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission, and consultation with the individual identified by the Native American Heritage Commission to be the “most likely descendant.” If human remains are found during excavation, excavation must stop in the vicinity of the find and any area that is reasonably suspected to overly adjacent remains until the County Coroner has been called out, and the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains. Future development projects would be required to comply with State regulations, which detail the appropriate actions necessary in the event human remains are encountered.

Compliance with General Plan Master EIR and Opportunities Study Program EIR mitigation measures, Health and Safety Code sections 7050.5-7055, Public Resources Code section 5097.98, and future project-level CEQA mitigation measures (as applicable) related to protection of human remains will reduce impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in these prior certified Master/Program EIRs. No new impact will occur.

6. Geology and Soils				
<i>Would the project:</i>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The General Plan Master EIR and Opportunities Study Program EIR analyzed potential geology and soils impacts resulting from the buildout of the City of Lake Forest consistent with General Plan land use designations and elements and zoning districts. The certified EIRs found that all geology and soils impacts would be reduced to a less than significant level through implementation of mitigation measures listed on pages 5.1-10 and 5.1-11 of the General Plan Master EIR and statutory/regulatory requirements described in Section 3.6 of the Opportunities Study Program EIR. Specifically, the California Building Code ("CBC") requires submittal of a site-specific geotechnical study prior to the issuance of building permits. The site-specific geotechnical study shall contain a suitability analysis and establish design criteria for the appropriate foundation type and support. Building plans shall demonstrate compliance with the recommendations of the site-specific geotechnical study. The 2013-2021 Housing Element Update relies on existing land use designations, zoning districts, and is consistent with all other General Plan elements. Therefore, it could not increase the significance of impacts identified in these previously identified EIRs.

Impact Discussion:

a)

- i) **No New Impact.** The City of Lake Forest is located in southern California, which is a seismically active region. Although the City is located in a seismically active area, it is not located in an Earthquake Fault Zone (Alquist-Priolo) and there are no known active or potentially active surface faults on the site. Therefore, there is no potential for rupture of a known earthquake fault in the City. No impact will occur.

- ii) **No New Impact.** The City is located in a seismic active area. The City is located

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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approximately mid-way between the Newport-Inglewood and the Elsinore Fault zones, as delineated on the State of California Earthquake Fault Zones Official Maps. Future residential development may be exposed to severe ground shaking from a regional earthquake. The major cause of structural damage from an earthquake is ground shaking. The intensity of ground motion expected at a particular site depends upon the magnitude of the earthquake, the distance to the epicenter and the geology of the area between the epicenter and the property. Greater movement from ground shaking can be expected on sites that are situated on poorly consolidated material, such as loose alluvium, close proximity to the causative fault, or in response to an event of great magnitude.

Residential development consistent with General Plan land use designations is located in seismically active Southern California and is subject to ground shaking from regional earthquake activity. Future residential development will be required to meet all applicable building code requirements pertaining to seismic events that could affect and impact proposed developments. More specifically, the City of Lake Forest is located within Seismic Zone 4, as identified by the CBC that is incorporated in the City's Municipal Code (Title 8, Chapter 8.02). Seismic Zone 4 is characterized by the most stringent requirements for building design. The incorporation of all applicable design and construction methods in compliance with Lake Forest Municipal Code Chapter 8.02 will reduce potential seismic hazard impacts.

Construction of any future residential development anticipated by the Housing Element will be required to comply with all seismic design parameters set forth in the CBC. Compliance with the seismic design parameters contained in the CBC and future project-level CEQA mitigation measures related to strong seismic ground shaking will reduce project-level impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in the General Plan Master EIR and Opportunities Study Program EIR. No new impact will occur.

- iii) **No New Impact.** Liquefaction refers to loose, saturated sand or silt deposits that lose their load supporting capability when subjected to intense shaking. Parts of the City are underlain by alluvium that, in its natural state, could respond poorly to loading during seismic ground motion. State-designated Liquefaction Hazards Zones are mapped in some areas of the City, including within or adjacent to residential sites identified in Appendix C of the 2013-2021 Housing Element, because pockets of potentially liquefiable soil materials may exist in the alluvial deposits. Consequently, the potential for liquefaction is present in the City and future residential development could experience liquefaction-related damages in the event of a moderate or large earthquake. Site-specific soils investigation would be required to determine the specific liquefaction potential of properties identified in Appendix C of the 2013-2021 Housing Element.

Potentially unstable soils discovered during excavation are required by provisions of the CBC to be removed and replaced, or otherwise treated to provide appropriate foundation support and to protect them from failures such as liquefaction. Adherence to the Seismic Zone 4 soil and foundation support parameters in Chapters 16 and 18 of the CBC and the grading requirements in Chapters 18 and A33 of the CBC, as required by City and State law, as described on pages 3.6-20 and 3.6-21 of the Opportunities Study Program EIR, ensures the maximum practicable protection available from soil failures under static or dynamic conditions for structures and their associated trenches, slopes and foundations.

Compliance with the seismic design parameters contained in the CBC and future project-level CEQA mitigation measures related to liquefaction, if any, will reduce impacts at the

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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project level. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in General Plan Master EIR and Opportunities Study Program EIR. No new impact will occur.

- iv) **No New Impact.** Parts of the City are underlain by hillside deposits (colluvium) that contain active and dormant landslide features, and alluvium that, in its natural state, could respond poorly to loading during seismic ground motion. State-designated Landslide Hazards Zones occur in some portions of Lake Forest, including within or adjacent to residential sites identified in Appendix C of the 2013-2021 Housing Element. Consequently, the potential for landsliding is present in the City, and future residential development could sustain damage in the event of an earthquake-induced landslide. Site-specific soils investigation would be required to determine the specific landslide potential of properties identified in Appendix C of the 2013-2021 Housing Element.

Adherence to the Seismic Zone 4 soil and foundation support parameters of the CBC, as required by City and State law, as described on pages 3.6-20 and 3.6-21 or the Opportunities Study Program EIR, ensures the maximum practicable protection available from slope failures under static or dynamic conditions for structures and their associated trenches, slopes and foundations.

Compliance with the seismic design parameters contained in the CBC and future project-level CEQA mitigation measures related to landslides, if any, will reduce impacts at the project level. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in General Plan Master EIR and Opportunities Study Program EIR. No new impact will occur.

- b) **No New Impact.** Future residential development consistent with General Plan land use designations and zoning districts will involve the removal of any unsuitable surface soils and the replacement of these soils with compacted fills. Future development projects would be required to prepare erosion control plans and/or incorporate best management practices to minimize potential erosion and sedimentation impacts. These projects would also be required to undergo site-specific CEQA analysis and comply with any mitigation measures should the analysis identify potentially significant impacts. The Housing Element Update is a policy document intended to facilitate and encourage the provision of safe and decent housing for Lake Forest residents and to accommodate the City's share of the regional housing need. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.
- c) **No New Impact.** Refer to responses 6(a)(i-iv). The existence of slightly-to-moderately compressible, corrosive, and expansive soils in the City makes it necessary to ensure the soils used for foundation support are sound. Depending on its location and site characteristics, future residential development of these sites consistent with General Plan land use designations could expose people or structures to potential substantial adverse effects involving unstable geologic units.

As part of the City's development and CEQA review process, geotechnical studies would be prepared to identify necessary improvements to ensure long-term geotechnical stability. Any residential development that occurs in conjunction with the Housing Element Update would be designed to resist seismic forces in accordance with the criteria and design parameters contained in the most current version of the CBC, and the standards of the Structural Engineers Association of California. Compliance with these building standards and site-specific

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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recommendations (if any) would mitigate project-level impacts related to compressible, corrosive, and expansive soils.

Compliance with existing building codes and future project-level CEQA mitigation measures related to seismic ground failure, including liquefaction, will reduce project-level impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.

- d) **No New Impact.** Refer to responses 6(a)(i-iv) and 6(c). Expansive soils shrink or swell as the moisture content decreases or increases. The existence of slightly-to-moderately expansive soils in areas of the City raises concerns about foundation stability of future development. Using expansive soils would have the potential to create future settlement or collapse leading to building damage and/or utility line disruption. These impacts have been evaluated at a program or policy-level in the General Plan Master EIR and Opportunities Study Program EIR. Future residential development that occurs under the 2013-2021 Housing Element Update would be subject to future CEQA review and consideration of potential soil-related impacts. Necessary improvements to ensure long term geotechnical stability would be required. Compliance with existing program-level and future project-level CEQA mitigation measures related to expansive soils will reduce impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in previously identified EIRs. No new impact will occur.
- e) **No Impact.** Any future residential development anticipated by the Housing Element would utilize the local sewer system. Therefore, no impact will occur.

7. Greenhouse Gas Emissions				
<i>Would the project:</i>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The Opportunities Study Program EIR analyzed Greenhouse Gas Emissions impacts at a program level and conservatively concluded that the Program's potential contribution to GHG emissions is significant and unavoidable. The City Council adopted a Statement of Overriding Considerations for these significant and unavoidable impacts pursuant to CEQA Guidelines Section 15093.

Impact Discussion:

- a) **No New Impact.** Future residential development in Lake Forest will be designed and constructed in accordance with General Plan land use designations and zoning districts. The 2013-2021 Housing Element Update does not change any land use policy or any building regulations that would raise or otherwise change development levels that could contribute to an increase in greenhouse gases. Greenhouse gas emission impacts associated with future development of the Opportunities Study were analyzed in Section 7.2.6 of the Opportunities Study Program EIR.

At the time of the OSA Program EIR analysis, no significance thresholds for determining GHG

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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impacts were available and there was no universally accepted methodology for quantifying GHG emissions. Accordingly, as part of this environmental analysis for the Housing Element Update, the City calculated greenhouse gas emissions associated with construction of the City's RHNA total of 2,727 units (see Appendix A to this Initial Study) using the currently widely accepted California Energy Emissions Estimator Model (CalEEMod). The combined annual emissions of greenhouse gasses anticipated by the construction of 2,727 units are summarized below:⁵

Using the currently widely accepted California Energy Emissions Estimator Model (CalEEMod) to calculate greenhouse gas emissions, the construction and occupancy of 2,727 new residential dwelling units is expected to generate approximately 47,480 metric tons per year in CO₂e units (see Appendix A to this Initial Study). This amounts to approximately 5.9 metric tons of CO₂e per new resident per year which is below the SCAQMD "Proposed Tier 4 Performance Standards" threshold of 6.6 metric tons per new resident per year. These totals include emissions from the construction phase, operation (occupancy) phase, and related mobile sources.

Additionally, future development of the residential sites identified in the 2013-2021 Housing Element Update was evaluated in the Opportunities Study Program EIR and will be subject to compliance with Mitigation Measures GCC1 through GCC8 in Section 7.2.6.

Adoption and implementation of the proposed Housing Element Update would not affect building energy demands or generate any additional vehicle trips, and more miles traveled, beyond those that would be associated with the General Plan. In addition, environmental review of individual projects will continue to be carried out to ensure that the projects comply with the Opportunities Study Program EIR mitigation measures and implement additional measures deemed necessary.

The housing sites identified in the 2013-2021 Housing Element Update are currently designated for residential development in the City's General Plan. As such the proposed Housing Element Update does not conflict with AB 32, SB 375, or any plans or programs that have been adopted to achieve those legislative mandates. Finally, the construction and occupancy of 2,727 housing units would generate approximately 5.9 metric tons of CO₂e per new resident per year which is below the SCAQMD "Proposed Tier 4 Performance Standards" threshold of 6.6 metric tons. Therefore, no new impact will occur.

- b) **No New Impact.** Refer to response 3.7(a). SB 375 requires Metropolitan Planning Organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) in Regional Transportation Plans. SCAG is responsible for developing an overall strategy for the region including Los Angeles, Orange, Riverside, San Bernardino, Ventura, and Imperial counties. On April 4, 2012, SCAG adopted the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future.⁶ The RTP/SCS is the culmination of a multi-year effort involving stakeholders from across the SCAG Region. The SCAG RTP/SCS sets forth a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation. The RTP/SCS is meant to provide individual jurisdictions with growth strategies that, when taken together, achieve the regional GHG emissions reduction targets.

⁵ See the Appendix to Appendix A of this Initial Study for calculations and for GHG emission factor assumptions.

⁶ <http://scagrtip.net/>

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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The 2013-2021 Housing Element Update is consistent with the growth projections used to develop the RTP/SCS, as well as the goals and objectives of the SCAG RTP/SCS. Since the Housing Element Update will not conflict with a greenhouse gas emissions plan, policy or regulation, no impact will occur.

8. Hazards and Hazardous Materials <i>Would the project:</i>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The General Plan Master EIR and Opportunities Study Program EIR analyzed potential hazards and hazardous materials impacts resulting from the buildout of the City of Lake Forest consistent with General Plan land use designations and elements and zoning districts. The certified EIRs found that all hazards and hazardous materials impacts would be reduced to a less than significant level through:

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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- Implementation of mitigation measures listed on pages 5.8-11 through 5.8-14 of the General Plan Master EIR and pages 3.7-21 and 3.7-22 of the Opportunities Study Program EIR; and
- Statutory/regulatory requirements described in pages 3.7-14, 3.7-15, 3.7-17, and 3.7-18 of the Opportunities Study Program EIR.

The 2013-2021 Housing Element Update relies on existing land use designations, zoning districts, and is consistent with all other General Plan elements. Therefore, it could not increase the significance of impacts identified in these previously identified EIRs.

Impact Discussion:

- No New Impact.** Limited amounts of some hazardous materials could be used in the construction and operation of future residential development, including standard construction materials (e.g., paints, solvents and fuels), cleaning and other maintenance products (used in the maintenance of buildings, pumps, pipes and equipment), diesel and other fuels (used in construction and maintenance equipment and vehicles), and the limited application of pesticides associated with landscaping around new developments. The routine transportation, use, and disposal of these materials would be subject to a wide range of laws and regulations, including those listed above, that are intended to minimize potential health risks associated with their use or the accidental release of such substances. Compliance with these federal, state, and local regulations during the development of future housing would limit potential hazards to the public or the environment associated with the routine transport, use, or disposal of hazardous materials. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in General Plan Master EIR and Opportunities Study Program EIRs. No new impact will occur.
- No New Impact.** Refer to response 8(a). Future residential development and associated supporting infrastructure may require limited demolition of existing structures prior to the start of new construction. Demolition of existing structures could result in exposure of construction personnel and the public to hazardous substances such as asbestos or lead-based paints. Various regulations and guidelines pertaining to abatement of, and protection from, exposure to asbestos and lead have been adopted for demolition activities. In California, asbestos and lead abatement must be performed and monitored by contractors with appropriate certifications from the State Department of Health Services. In addition, the California Occupational Safety and Health Administration (Cal/OSHA) has regulations concerning the use of hazardous materials, including requirements for safety training, availability of safety equipment, hazardous materials exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces the hazard communication program regulations, which include provisions for identifying and labeling hazardous materials, describing the hazards of chemicals, and documenting employee-training programs. The regulation and programs noted above would be followed during construction activities. Compliance with these regulations would ensure that construction workers and the general public would not be exposed to any unusual or excessive risks related to hazardous materials during demolition activities.

The Opportunities Study Program EIR found impacts related to the release of hazardous materials to be less than significant with continued implementation of, and adherence to, applicable federal, state, and local laws and implementation of the County's Hazardous Materials Area Plan, Landfill Load Checking Program, the Orange County Integrated Waste Management Department Household Hazardous Waste Program, and the City's Emergency Plan.

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
Compliance with existing program-level, statutory/regulatory requirements, and future project-level CEQA mitigation measures, if any, will reduce impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in the Opportunities Study Program EIR. No new impact will occur.				
<p>c) No New Impact. Refer to Sections 8(a-b). The proposed project would not directly emit hazardous emissions, and would not involve the handling of hazardous or acutely hazardous materials. However, development consistent with General Plan land use designations and development agreements within the OSA could emit hazardous emissions and involve the handling of hazardous or acutely hazardous materials within a quarter mile of a school.</p> <p>Hazardous materials regulations related to the use, handling, and transport of hazardous materials are codified in Titles 8, 22, and 26 of the CCR, and their enabling legislation set forth in Chapter 6.95 of the California Health and Safety Code. These laws were established at the state level to ensure compliance with federal regulations to reduce the risk to human health and the environment from the routine use of hazardous substances. These regulations must be implemented by employers/businesses, as appropriate, and are monitored by the state (e.g., Cal OSHA in the workplace or DTSC for hazardous waste) and/or the County. The haulers and users of hazardous materials are listed with the Orange County Fire Authority and are regulated and monitored under the auspices of the County of Orange. Implementation of Title 49, Parts 171-180, of the Code of Federal Regulations would reduce any impacts associated with the potential for accidental release of hazardous materials.</p> <p>The General Plan Master EIR did not identify significant impacts related to the the use, handling, and transport of hazardous materials near schools. The Opportunities Study Program EIR found impacts related to hazardous materials within one-quarter mile of a school to be less than significant with mitigation. The applicable mitigation will be addressed if a school is proposed within the Opportunities Study Area. No schools are currently proposed. Furthermore, all future residential development projects in the City will be subject to the laws and regulations described on 3.7-14, 3.7-15, 3.7-17, and 3.7-18 of the Opportunities Study Program EIR. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.</p>				
<p>d) No New Impact. Refer to responses 8(a-c). Future residential development that is consistent with the General Plan land use designations may be located in the vicinity of known hazardous materials sites identified on a list compiled pursuant to Government Code Section 65962.5 and listed in the Opportunities Study Program EIR. Developers, prior to issuance of a grading permit, must perform a CEQA review to determine the potential for significant impacts related to hazardous materials, and provide appropriate mitigation measures. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in the General Plan Master EIR and Opportunities Study Program EIR. No new impact will occur.</p>				
<p>e) No New Impact. John Wayne Airport, which is owned and operated by the County of Orange, is the only commercial service airport in Orange County. Along with the Fullerton Municipal Airport, which is centrally located in the Los Angeles Basin, and the Anaheim Airport, located in the City of Anaheim, these three airports are the only facilities that accommodate general aviation in the County. The Housing Element Update does not envision residential development in Lake Forest occurring within two miles of any of these airports. No impact will occur.</p>				
<p>f) No New Impact. The Housing Element Update does not envision future residential development in Lake Forest near a private airport, and therefore, will not expose residents to</p>				

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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public airport hazards. No impact will occur.

- g) **No New Impact.** The City's Emergency Preparedness Plan was updated in 2010, consistent with Opportunities Study Program EIR Mitigation Measure 3.7-4. Although implementation of the Housing Element Update would increase the number of people within the City at any one time that could be subject to injury from a catastrophic event, the City has an option, under the necessary circumstances, to request mutual aid from other jurisdictions, including nearby cities, counties, the California OES, and ultimately, the Federal Emergency Management Agency (FEMA). Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.
- h) **No New Impact.** Portions of the City identified for future residential development are located adjacent to areas designated to be a Very High Fire Severity Hazard Zone/Special Fire Protection Area (VHFSHZ/SFPA) by the California Department of Forestry and Fire Protection (CalFire). Development in the VHFSHZ/SFPA will be required to comply with adopted VHFSHZ/SFPA guidelines, which ensure that development design will comply with the latest applicable provisions of the Uniform Fire Code (UFC) as well as locally adopted ordinances. Opportunities Study Program EIR mitigation measure MM 3.12-2 requires all developers in the Opportunities Study area to enter into a Secured Fire Protection Agreement with the OCFA prior to approval of any Master, Project, or Tentative Tract Map, to address the potential need for additional fire apparatus and staff resulting from new residential development. Areas located outside of the OSA are developed and currently served by the OCFA. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.

9. Hydrology and Water Quality <i>Would the project:</i>				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on-	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
or off-site?				
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Cause inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
k) Deposit sediment and debris materials within existing channels obstructing flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
l) Exceed the capacity of a channel and cause overflow during design storm conditions?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
m) Adversely change the rate, direction or flow of groundwater?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
n) Have an impact on groundwater that is inconsistent with a groundwater management plan prepared by the water agencies with the responsibility for groundwater management?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o) Cause a significant alteration of receiving water quality during or following construction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
p) Create or contribute runoff water which would generate substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
q) Substantially degrade water quality by discharge which affects the beneficial uses (i.e. swimming, fishing, etc.) of the receiving or downstream waters?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
r) Increase in any pollutant for which the receiving water body is already impaired as listed on the Clean Water Act Section 303(d) list?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The General Plan Master EIR and Opportunities Study Program EIR analyzed potential hydrology and water quality impacts resulting from the buildout of the City of Lake Forest consistent with General Plan

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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land use designations and elements and zoning districts. The certified EIRs found that most hydrology and water quality impacts would be reduced to a less than significant level through:

- Implementation of mitigation measures listed on page 5.3-8 of the General Plan Master EIR and page 3.8-38 of the Opportunities Study Program EIR; and
- Statutory/regulatory requirements described in pages 3.8-29, 3.8-32, and 3.8-33 of the Opportunities Study Program EIR.

However, the Opportunities Study Program EIR found significant and unavoidable water quality impacts related to potential pesticide contamination even with implementation of mitigation measures. The City Council adopted a Statement of Overriding Considerations for this significant and unavoidable impact pursuant to CEQA Guidelines Section 15093.

The 2013-2021 Housing Element Update relies on existing land use designations, zoning districts, and is consistent with all other General Plan elements. Therefore, it could not increase the significance of impacts identified in the previously identified EIRs.

Impact Discussion:

- No New Impact.** Discharge from construction and occupancy of residential development that occurs consistent with General Plan land use designations and zoning districts could violate water quality standards or waste discharge requirements if development is not required to comply with applicable statutes and regulations. Compliance with City of Lake Forest Grading and Excavation Code and Stormwater Management Code, Stormwater Pollution Prevention Plan (SWPPP), Orange County Drainage Area Management Plan (DAMP), and applicable Regional Water Quality Control Board policies will reduce impacts. Based on regional water quality requirements, future residential projects will be required to install, and maintain throughout the period of construction, all applicable soil erosion control measures to reduce erosion and minimize water quality impacts. The installation and maintenance of all applicable erosion control measures required by the City will minimize the amount of sediments generated from development sites. The OSA Program EIR Mitigation Measures require approval of a Water Quality Management Plan and hydrology study prior to approval of a Tentative Tract Map for development. In addition, compliance with future project-level CEQA mitigation measures related to water quality standards and waste discharge requirements, if any, will also reduce impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.
- No New Impact.** Future residential development would likely increase demand on water supplies. However, the Irvine Ranch Water District (IRWD) performed a Water Supply Assessment for the Opportunities Study Program EIR that determined adequate water resources are available to meet the need for more than 2,727 new dwelling units without contributing to degradation of the groundwater basin. The IRWD, Orange County Water District, and member agencies aggressively manage groundwater resources to minimize impacts. These agencies may use recycled water, imported water for groundwater storage, spreading grounds for groundwater recharge, injection wells, and conduct monitoring and research programs to further manage groundwater resources. Additionally, existing National Pollutant Discharge Elimination System (NPDES) stormwater regulations (e.g., construction activities, post construction BMPs, and others) would prevent direct contamination and degradation of groundwater resources. Compliance with NPDES General Construction Activity and Industrial Permits, the DAMP, the Groundwater Management Plan, City of Lake Forest Codes, and County of Orange codes will prevent discharges of pollutants to groundwater or landscapes

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
<p>where they may infiltrate to groundwater. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.</p>				
<p>c) No New Impact. The Opportunities Study Program EIR contains Mitigation Measure 3.8-5 (Chapter 7) which clarifies project-level review requirements. Prior to the issuance of a grading permit for any residential development within the OSA, the applicant must demonstrate no net increase in peak stormflow rates resulting from new development. The General Plan Master EIR evaluated drainage impacts and included a number of mitigation measures on page 5.3-8 for development located outside of the OSA. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.</p>				
<p>d) No New Impact. Refer to response 9(c). Approval of the Housing Element would not modify land uses, but implementation relies on future development assumptions, as evaluated in the Opportunities Study Program EIR. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.</p>				
<p>e) No New Impact. Refer to response 9(c). Implementation of Opportunities Study Program EIR Mitigation Measure 3.8-5 and compliance with existing City and County construction and stormwater management codes and the DAMP would reduce impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.</p>				
<p>f) No New Impact. Pesticide use associated with future residential development may impact water quality. Implementation of the existing DAMP will include structural and non-structural post-construction Best Management Practices (BMPs), such as the use of natural landscaping that does not require extensive pesticide use. Unfortunately, the effectiveness of BMPs regarding pesticide concentration reduction is not well documented. Consequently, implementation of BMPs to the maximum extent practicable may still result in pesticide-related water quality impacts. The Opportunities Study Program EIR determined that this impact would be significant and unavoidable despite incorporation of mitigation measures. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.</p>				
<p>g) No New Impact. The Federal Emergency Management Agency (FEMA) prepares and maintains Flood Insurance Rate Maps (FIRMs), which show the extent of Special Flood Hazard Areas (SFHAs) and other thematic features related to flood risk, in participating jurisdictions. Portions of the City, including properties listed in Appendix C of the 2013-2021 Housing Element, are located within the 100-year flood zone where the potential for future flooding of private property could exist; however, developers would be required to conduct a hydrology and hydraulics study to determine potential impacts related to the 100-year flood zone. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.</p>				
<p>h) No New Impact. Refer to response 9(g). No new impact will occur.</p>				
<p>i) No New Impact. Refer to response 9(g-h). No dams or levees are present on or near</p>				

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
residential areas of Lake Forest, including any of the residential sites identified in Appendix C of the 2013-2021 Housing Element Update. As such, flooding resulting from a dam or levee failure would not occur. No impact will occur.				
j) No Impact. The southwestern edge of the City is located more than six miles from the Pacific Ocean. Therefore there is no threat of impact from tsunamis. Residential areas of Lake Forest, including sites identified in Appendix C of the 2013-2021 Housing Element Update, are not located close to a reservoir, harbor, or lake capable of creating a seiche or mudflow. No impact will occur.				
k) No New Impact. Refer to response 9(c). Approval of the Housing Element would not modify land uses, but implementation relies on future development assumptions, as evaluated in the Opportunities Study Program EIR. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				
l) No New Impact. Refer to response 9(c). Implementation of Opportunities Study Program EIR Mitigation Measure 3.8-5 and compliance with existing City and County construction and stormwater management codes and the DAMP would reduce impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				
m) No New Impact. The Orange County Water District (OCWD) is charged with managing this groundwater basin by authority granted to it in the California Water Code Appendix Chapter 40. The Opportunities Study Program EIR determined that development of the OSA would not adversely change the rate, direction or flow of groundwater. Future grading operations within residential areas located outside of the OSA would be limited as the areas are developed. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No impact will occur.				
n) No New Impact. Refer to response 9(a). The OSA Program EIR Mitigation Measures require approval of a Water Quality Management Plan and hydrology study prior to approval of a Tentative Tract Map for development. In addition, compliance with future project-level CEQA mitigation measures related to water quality standards, if any, will also reduce impacts, consistent with the OCWD Groundwater Management Plan. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				
o) No New Impact. Refer to response 9(f). Approval of the Housing Element would not modify land uses, but implementation relies on future development assumptions, as evaluated in the Opportunities Study Program EIR. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				
p) No New Impact. Refer to response 9(f). Approval of the Housing Element would not modify land uses, but implementation relies on future development assumptions, as evaluated in the Opportunities Study Program EIR. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
q) No New Impact. Refer to response 9(f). Approval of the Housing Element would not modify land uses, but implementation relies on future development assumptions, as evaluated in the Opportunities Study Program EIR. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				
r) No New Impact. Refer to response 9(f). Approval of the Housing Element would not modify land uses, but implementation relies on future development assumptions, as evaluated in the Opportunities Study Program EIR. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				

10. Land Use and Planning <i>Would the project:</i>				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially conflict with on-site or adjacent land use due to project-related significant unavoidable indirect effects (e.g., noise, aesthetics, etc.) that preclude use of the land as it was intended by the General Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Conflict with the Central and Coastal Natural Communities Conservation Program/Habitat Conservation Plan (NCCP/HCP) of which the City of Lake Forest is a participant?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The General Plan Master EIR and Opportunities Study Program EIR analyzed potential land use and planning impacts. Mitigation measures listed on pages 5.6-13 through 5.6-15 of the General Plan Master EIR would reduce impacts associated with the General Plan to a less than significant level. The Opportunities Study Program EIR did not identify any significant land use impacts and therefore no mitigation was proposed. The 2013-2021 Housing Element Update relies on existing land use designations, zoning districts, and is consistent with all other General Plan elements. Therefore, it could not increase the significance of impacts identified in these prior certified EIRs.

Impact Discussion:

- a) **No New Impact.** The residential development anticipated by the Housing Element would be accommodated on sites located within the OSA that are designated for residential or mixed-use. Therefore, housing development anticipated by the Housing Element Update could not physically divide an established community. No impact will occur.
- b) **No New Impact.** The residential development anticipated by the Housing Element would be

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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accommodated on sites located within the OSA that are designated for residential or mixed-use. The Opportunities Study Program EIR evaluated the change in land use from non-residential to residential for all of the Opportunities Study projects and found all impacts related to land use and planning to be less than significant. California Government Code Section 65300.5 requires internal consistency among various elements of the General Plan. City staff has reviewed the other elements of the General Plan and has determined that the proposed Housing Element Update provides this necessary consistency. No new impact will occur.

- c) **No New Impact.** Refer to response 4(f). Although the City is contained within the planning area for the Central and Coastal Orange County NCCP/HCP, the parcels identified in the residential sites inventory (Appendix C of the 2013-2021 Housing Element) are outside the Reserve System implemented by the NCCP/HCP. Any project on a site which contains resources protected by the NCCP/HCP will be required to pay the appropriate mitigation fee prior to issuance of a grading permit. Adoption and implementation of the Housing Element Update would not conflict with provisions of the NCCP/HCP. No impact will occur.

11. Mineral Resources <i>Would the project:</i>				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The Opportunities Study Program EIR analyzed potential impacts associated with future residential development of five properties within the Opportunities Study Area. Several of the sites analyzed in the PEIR are listed in Appendix C of the 2013-2021 Housing Element Update. The 2013-2021 Housing Element Update relies on existing land use designations, zoning districts, and is consistent with all other General Plan elements. Therefore, it could not increase the significance of impacts identified in this prior certified EIR.

The Opportunities Study Program EIR recognizes that important mineral resources occur within the Opportunities Study Area. However, important mineral resources have not been identified on any of the sites listed within Appendix C of the 2013-2021 Housing Element Update.

Impact Discussion:

- a) **No New Impact.** The Opportunities Study Program EIR found that no impacts to mineral resources would result from the future development. Additionally, no important mineral resources have been identified on the sites listed within Appendix C of the 2013-2021 Housing Element Update. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.
- b) **No New Impact.** See the discussion in 11(a). Development on the sites listed within Appendix C of the 2013-2021 Housing Element Update would not result in the loss of a mineral resource recovery site. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
12. Noise				
<i>Would the project result in:</i>				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Project traffic will cause a noise level increase of 3 dB or more on a roadway segment adjacent to a noise sensitive land use. Noise sensitive land uses include the following: residential (single-family, multi-family, mobile home); hotels; motels; nursing homes; hospitals; parks, playgrounds and recreation areas; and schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) The resulting "future with project" noise level exceeds the noise standard for sensitive land uses as identified in the City of Lake Forest General Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Exceeds the stationary source noise criteria for the City of Lake Forest as specified by the Exterior noise standards set forth in the Noise Control Chapter of the Lake Forest Municipal Code?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The General Plan Master EIR and Opportunities Study Program EIR analyzed potential noise impacts resulting from the buildout of the City of Lake Forest consistent with General Plan land use designations and elements and zoning districts. The certified EIRs found that most noise impacts would be reduced to a less than significant level through:

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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- Implementation of mitigation measures listed on page 5.5-9 through 5.5-12 of the General Plan Master EIR⁷ and page 3.10-22 of the Opportunities Study Program EIR; and
- City of Lake Forest Municipal Code requirements described on page 3.10-21 of the Opportunities Study Program EIR.

The Opportunities Study Program EIR evaluated the environmental impacts associated with future residential development and determined that all impacts would be less than significant with the incorporation of Mitigation Measures 3.10-1 through 3.10-3. However, the General Plan Master EIR found significant and unavoidable cumulative noise impacts related to the buildout of the City even with implementation of mitigation measures. The City Council adopted a Statement of Overriding Considerations for these significant and unavoidable cumulative impacts pursuant to CEQA Guidelines Section 15093.

The 2013-2021 Housing Element Update relies on existing land use designations and zoning districts, as evaluated in the OSA PEIR. Therefore, it could not increase the significance of impacts identified in these prior certified EIRs.

Impact Discussion:

- No New Impact.** Future residential development that is consistent with the General Plan land use designations may increase short-term noise levels during construction and long-term noise levels during the operational phase by the use of stationary and mobile noise sources. Construction activities associated with future residential projects are anticipated to temporarily exceed the City's noise standards. The degree of noise impact would be dependent upon the distance between the construction activity and the sensitive noise receptor. The Opportunities Study Program EIR contains noise mitigation measures which apply to all projects in the Opportunities Study Area, including all of the sites identified Appendix C of the 2013-2021 Housing Element Update. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.
- No New Impact.** The Opportunities Study Program EIR evaluated the effects of ground borne vibration. The PEIR contains noise mitigation measures which apply to all projects in the Opportunities Study Area, including all of the projects Appendix C of the 2013-2021 Housing Element Update. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.
- No New Impact.** The Housing Element identifies adequate sites for potential future development that could accommodate at least 2,727 additional units through Year 2021. These units would be constructed within the planning area of the Opportunities Study Program EIR. This certified EIR determined that traffic associated with future developments consistent with General Plan land use designations would result in long-term increases in ambient noise levels. Depending on the size of each development, this increase may be noticeable for some people but may not significantly impact surrounding sensitive uses and may not generate a substantial increase in ambient noise levels. Future development would be subject to CEQA review and consideration of potential noise impacts. Compliance with future project-level CEQA mitigation measures related to ambient noise levels will reduce impacts. Despite implementation of mitigation measures, both the General Plan Master EIR and the Opportunities Study Program

⁷ Mitigation Measure Noise 6 is currently implemented through provisions of the 2010 Building Code.

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
EIR determined that the cumulative impact associated with the increase in ambient noise levels associated with the buildout of the City in accordance with General Plan land use designations and zoning districts would remain significant and unavoidable. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				
d) No New Impact. Refer to response 12(a). The Opportunities Study Program EIR contains noise mitigation measures which apply to all sites in the Opportunities Study Area, including all of the projects Appendix C of the 2013-2021 Housing Element Update. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				
e) No Impact. Refer to response 8(e). Future residential development envisioned by the Housing Element Update will not be located within two miles of any airport and therefore, will not expose residents to excessive noise levels from airport operations. No impact will occur.				
f) No Impact. Refer to response 8(f). Residential development is not expected to occur within two miles of any airport and therefore residents will not be exposed to excessive noise levels from airport operations. No impact will occur.				
g) No New Impact. Refer to response 12(c). Approval of the Housing Element would not modify land uses, but implementation relies on future development assumptions, as evaluated in the General Plan Master EIR and the Opportunities Study Program EIR. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				
h) No New Impact. Refer to response 12(c). Approval of the Housing Element would not modify land uses, but implementation relies on future development assumptions, as evaluated in the General Plan Master EIR and the Opportunities Study Program EIR. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				
i) No New Impact. Refer to response 12(a). Approval of the Housing Element would not modify land uses, but implementation relies on future development assumptions, as evaluated in the General Plan Master EIR and the Opportunities Study Program EIR. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				

13. Population and Housing <i>Would the project:</i>				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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The General Plan Master EIR and Opportunities Study Program EIR analyzed potential population and housing impacts resulting from the buildout of the City of Lake Forest consistent with General Plan land use designations and elements and zoning districts. The certified General Plan Master EIR found that all population and housing impacts would be reduced to a less than significant level through implementation of mitigation measures listed on pages 5.9-6 through 5.9-9. The Opportunities Study Program EIR, however, found that future development of the Opportunities Study Area would have a significant and unavoidable impact related to population growth inducement. Furthermore, the Program EIR concluded that no feasible mitigation was available. The City Council adopted a Statement of Overriding Considerations for this significant and unavoidable impact pursuant to CEQA Guidelines Section 15093. The 2013-2021 Housing Element Update relies on existing land use designations, zoning districts, and is consistent with all other General Plan elements. Therefore, it could not increase the significance of impacts identified in these previously certified EIRs.

Impact Discussion:

- a) **No New Impact.** The Opportunities Study Program EIR evaluated land use changes that could result in the development of approximately 4,000 housing units. Future development under the OSA Program EIR could add over 16,500 people to the City's population over a number of years, resulting in a 21 percent increase in population. Further, the OSA PEIR determined that impacts related to population growth would be significant and unavoidable. The Housing Element Update identifies sites with General Plan land use and zoning capacity to accommodate at least 2,727 new units through year 2021. All of the residential sites identified in Appendix C of the 2013-2021 Housing Element Update were evaluated in the Opportunities Study Program EIR. Because this level of future housing growth is part of existing land development plans, adoption and implementation of the 2013-2021 Housing Element Update will not directly induce any new growth in the community which was not evaluated in the certified Opportunities Study Program EIR. No new impact will occur.
- b) **No New Impact.** The Housing Element Update anticipates accommodating the City's share of the regional housing need with development on vacant sites. No displacement of housing is anticipated during the planning period. No impact will occur.
- c) **No New Impact.** Refer to response 13(b). No impact will occur.

14. Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The General Plan Master EIR and Opportunities Study Program EIR analyzed potential public service impacts resulting from the buildout of the City of Lake Forest consistent with General Plan land use designations and elements and zoning districts. The certified EIRs found that all public service impacts would be reduced to a less than significant level through implementation of mitigation measures listed on page 5.11-12 of the General Plan Master EIR and page 3.12-13 of the Opportunities Study Program

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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EIR. The 2013-2021 Housing Element Update relies on existing land use designations, zoning districts, and is consistent with all other General Plan elements. Therefore, it could not increase the significance of impacts identified in these previously identified EIRs.

Impact Discussion:

- a) **No New Impact.** The Orange County Fire Authority (OCFA) provides fire protection for the City of Lake Forest. Residential development consistent with General Plan land use designations would increase the demand for fire protection services and may require improvements to existing facilities or increases in staffing and equipment. Opportunities Study Program EIR Mitigation Measures apply to all future development on sites identified in Appendix C of the 2013-2021 Housing Element Update. These measures require compliance with the VHFSHZ/SFPA Guidelines (MM 3.12-1) and execution of a Secured Fire Protection Agreement with OCFA (MM 3.12-2). These measures ensure that all impacts related to fire protection are mitigated to less than significant. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.
- b) **No New Impact.** The Orange County Sheriff's Department (OCSD) provides police protection for the City. The Opportunities Study Program EIR evaluated the future development of over 4,000 new homes, including future homes identified in Appendix C of the 2013-2021 Housing Element Update. The OSA PEIR determined that impacts to police services would be less than significant. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.
- c) **No New Impact.** The City is served by the Saddleback Valley Unified School District (SVUSD). Future residential development would increase the demand on schools. The Opportunities Study Program EIR recognizes that payment of school impact fees pursuant to SB 50 is considered full mitigation of school impacts. However, pursuant to executed School Mitigation Agreements for the OSA development, developers will pay fees in excess of statutory fees for development of the Opportunities Study Area, including the sites identified in Appendix C of the 2013-2021 Housing Element Update. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.
- d) **No New Impact.** Residential development consistent with General Plan land use designations would increase the demands for parkland and recreational facilities, and usage of existing facilities. Pursuant to the terms of the executed Development Agreements for each of the Opportunities Study Area projects, including sites identified in Appendix C of the 2013-2021 Housing Element Update, sufficient parkland and fees will be provided such that impacts to parks will be less than significant. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.
- e) **No New Impact.** Residential development consistent with General Plan land use designations would increase the demands for other public facilities. Future developments would be subject to CEQA review and impacts on other public facilities would be considered. Compliance with Master/Program EIR mitigation measures, existing City public facility dedication standards, and future project-level CEQA mitigation measures will reduce impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
15. Recreation				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The General Plan Master EIR and Opportunities Study Program EIR analyzed potential recreation impacts resulting from the buildout of the City of Lake Forest consistent with General Plan land use designations and elements and zoning districts. The General Plan EIR found that recreation impacts would be reduced to a less than significant level through implementation of mitigation measures listed on pages 5.14-11 through 5.14-13. The Opportunities Study Program EIR determined that recreation impacts would be less than significant and mitigation is not required. The 2013-2021 Housing Element Update relies on existing land use designations, zoning districts, and is consistent with all other General Plan elements. Therefore, it could not increase the significance of impacts identified in these prior certified EIRs.

Impact Discussion:

- a) **No New Impact.** Refer to response 14(d). Future residential development would occur in primarily undeveloped areas and include dedicated park land and/or fees which meet or exceed the City's standard of five acres of active parkland per thousand population. Each developer in the Opportunities Study planning area will be required to meet the City's parkland dedication requirements by providing 3 acres per thousand population in on-site neighborhood parks or payment of in-lieu fees at a rate of two acres per thousand population for community parks. The in-lieu fees will be used for a planned Sports Park and Recreation Center facility. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.
- b) **No New Impact.** Refer to response 15(a). All impacts related to the development of future parkland required to serve future residential development have been analyzed at the program-level in the Opportunities Study Program EIR. Recreation facilities within individual projects, as well as they City's Sports Park Project will be, or have been, evaluated at the project level for CEQA compliance. Compliance with Program/Master EIR mitigation measures and project-level CEQA mitigation measures will reduce impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.

16. Transportation/Traffic <i>Would the project:</i>				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Issues		New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
	transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				
b)	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e)	Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g)	ICU (intersection capacity utilization) values at intersections, with the proposed project, exceed the City of Lake Forest performance criteria as specified in Table C-3 of the General Plan Circulation Element?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h)	The proposed project includes design features or uses that may cause traffic hazards such as sharp curves, tight turning radii from streets, limited roadway visibility, short merging lanes, uneven road grades, or any other conditions determined by the City traffic engineer to be a hazard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i)	The project provides less parking than required, applying the standards found in the City of Lake Forest Municipal Code?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The General Plan Master EIR and Opportunities Study Program EIR analyzed potential transportation/traffic impacts resulting from the buildout of the City of Lake Forest consistent with General Plan land use designations and elements and zoning districts. The certified General Plan EIR found that all transportation/traffic impacts would be reduced to a less than significant level through implementation of mitigation measures listed on pages 5.10-22 through 5.10-28. The Opportunities Study Program included the creation of the Lake Forest Traffic Analysis Model (LFTAM) and the Lake Forest Transportation Mitigation Fee Program (LFTM). The LFTM Program allocates fees paid by all future Opportunities Study Area developments to improve approximately eighteen intersections

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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throughout the City and in surrounding areas resulting in beneficial impacts related to the Opportunities Study developments. Accordingly, the certified Opportunities Study Program EIR determined that all traffic/transportation impacts would be less than significant without a need for mitigation measures. The 2013-2021 Housing Element Update relies on existing land use designations, zoning districts, and is consistent with all other General Plan elements. Therefore, it could not increase the significance of impacts identified in these previously certified EIRs.

Impact Discussion:

- a) **No New Impact.** The 2013-2021 Housing Element Update is consistent with the General Plan, including the Circulation Element, and Zoning Code. These adopted City plans are consistent with adopted regional transportation plans. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur
- b) **No New Impact.** In June 1990, the Congestion Management Program (CMP) was created statewide as a result of Proposition 111. While the Opportunities Study Program EIR determined that implementation of LFTM would ensure that impacts from the Program would remain less than significant, future residential development will be evaluated at the project level to determine potential impacts to traffic and transportation, including CMP facilities. Residential sites identified in Appendix C of the 2013-2021 Housing Element Update are subject to the LFTM Program. The LFTM Program is a set of citywide transportation improvements designed to maintain adequate levels of service on the City's arterial street system, including CMP facilities. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur
- c) **No New Impact.** Adoption of the Housing Element itself would not involve building any structures and thus would not result in any changes to air traffic patterns and in any substantial safety risks related to aircraft traffic. Furthermore, the nearest airports are more than six miles away from the City and therefore future residential development contemplated by the 2013-2021 Housing Element Update would not impact airport operations. Therefore, no impact will occur.
- d) **No New Impact.** Development consistent with General Plan land use designations would not likely increase hazards to motorists, pedestrians, or bicyclists. Through the City's environmental review process, future development projects would be evaluated at the project level for potential safety impacts. Where needed, appropriate mitigation measures would be required. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur
- e) **No New Impact.** Any future development consistent with General Plan land use designations would be required to conform to traffic and safety regulations that specify adequate emergency access measures. Because adequate emergency access is impossible to determine with any precision without specific details regarding each development, any future development would be evaluated to determine adequacy of emergency access on a project by project basis. Future residential projects will be designed to avoid interference with emergency operations in the City. Compliance with existing Master/Program EIR mitigation measures and future project-level approval conditions or CEQA mitigation measures will reduce impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
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- f) **No New Impact.** Public transportation is available to Lake Forest's residents through the Orange County Transit Authority (OCTA). OCTA operates several bus routes serving the City of Lake Forest. Development consistent with General Plan land use designations would increase the demand for bus service. Future site-specific residential development proposals would require individual assessments of potential impacts to applicable policies, plans or programs supporting alternative transportation. These projects will be reviewed for consistency with Circulation Element policies regarding public transit and non-vehicular mobility, including:
- Policy 3.1 Promote the provision of public transit facilities within areas of major development.
 - Policy 4.2 Provide and maintain a non-vehicular component of the Lake Forest overall circulation system that supports bicycles, equestrians, and pedestrians and is coordinated with those of other service districts in Lake Forest and with adjacent jurisdictions.

Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.

- g) **No New Impact.** Refer to response 16(a). Future residential development consistent with General Plan land use designations is subject to performance criteria specified in Table C-3 of the General Plan Circulation Element. Future residential development would also be subject to CEQA review, as appropriate, as individual projects are proposed. Compliance with existing Master/Program EIR mitigation measures and future project-level approval conditions or CEQA mitigation measures will reduce traffic intersection impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur
- h) **No New Impact.** Refer to response 16(d). Development consistent with General Plan land use designations would not likely include design features or uses that may cause traffic hazards such as sharp curves, tight turning radii from streets, limited roadway visibility, short merging lanes, uneven road grades, or any other conditions determined by the City traffic engineer to be a hazard. Through the City's development review process, future projects would be evaluated for potential safety impacts. Where needed, appropriate mitigation measures would be required. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur
- i) **No New Impact.** Future residential development will be subject to parking requirements contained in Title 9 of the City of Lake Forest Municipal Code. No new impact will occur

17. Utilities and Service Systems <i>Would the project:</i>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Issues		New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? In making this determination, the Authority shall consider whether the project is subject to the water supply assessment requirements of Water Code Section 10910, et. seq. (SB 610), and the requirements of Government Code Section 664737 (SB 221).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e)	Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The General Plan Master EIR and Opportunities Study Program EIR analyzed potential utility and service system impacts resulting from the buildout of the City of Lake Forest consistent with General Plan land use designations and elements and zoning districts. The certified General Plan EIR found that all utility and service system impacts would be reduced to a less than significant level through implementation of mitigation measures listed on pages 5.12-3, 5.12-5⁸, 5.12-10, 5.12-11, 5.12-13, 5.12-15, 5.12-18, and 5.12-19. The certified Opportunities Study Program EIR determined that all utility and service system impacts would be less than significant with compliance with statutory/regulatory requirements described on pages 3.15-32 and 3.15-33. The 2013-2021 Housing Element Update relies on existing land use designations, zoning districts, and is consistent with all other General Plan elements. Therefore, it could not increase the significance of impacts identified in these prior certified EIRs.

Impact Discussion:

- a) **No New Impact.** Development consistent with General Plan land use designations has the potential to increase the demand for wastewater services in the City of Lake Forest. The City of Lake Forest requires compliance with all applicable wastewater discharge permit requirements. The purpose of the wastewater discharge permit program is to ensure the City's compliance with the NPDES program, as administered by the Regional Water Quality Control Boards (RWQCB). Future development within the Opportunities Study Area, including sites identified in Appendix C of the 2013-2021 Housing Element Update, will be required to comply with all applicable wastewater discharge requirements issued by the RWQCBs. Therefore, future

⁸ Mitigation Measure Energy 4 is currently implemented through provisions of the 2010 Building Code.

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
residential development would not exceed applicable wastewater treatment requirements. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				
b) No New Impact. Wastewater generated by development of the residential sites in Appendix C of the 2013-2021 Housing Element Update was evaluated in the Opportunities Study Program EIR (Chapter 3.15). The OSA PEIR determined that wastewater from the projects would be conveyed to and treated at the Irvine Ranch Water District (IRWD-operated Michelson Water Reclamation Plant (MWRP) and Los Alisos Water Reclamation Plant (LAWRP) and that adequate wastewater treatment capacity exists or is planned to accommodate future residential growth anticipated in the City. Consequently, because adequate capacity exists in LAWRP and MWRP to accommodate the demand of the Opportunities Study Area development and because capacity improvements are planned at MWRP to accommodate anticipated recycled water demands, implementation would not require or result in the construction of new wastewater treatment facilities or the expansion of existing facilities. The Opportunities Study Program EIR included a Water Supply Assessment and did not identify any impacts related to potable water filtration and delivery systems. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				
c) No New Impact. Refer to responses 9(c-e). The Opportunities Study Program EIR contains Mitigation Measure 3.8-5 (Chapter 7) which clarifies project-level review requirements. Prior to the issuance of a grading permit for any residential development within the OSA, the applicant must demonstrate no net increase in peak stormflow rates resulting from new development. Compliance with existing City and County construction and stormwater management codes and the DAMP would reduce impacts. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				
d) No New Impact. A Water Supply Assessment (WSA) was prepared for the Opportunities Study Program EIR, consistent with Water Code Section 10910. The WSA determined that adequate water supply exists or will exist to serve future residential development anticipated within the EIR planning area (including residential sites in Appendix C of the 2013-2021 Housing Element). Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				
e) No New Impact. Refer to section 17(b) for a discussion of impacts to wastewater facilities. the IRWD-operated Michelson Water Reclamation Plant (MWRP) and Los Alisos Water Reclamation Plant (LAWRP) will have adequate capacity to serve future residential development in Lake Forest. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.				
f) No New Impact. Future residential development will generate solid waste that will be collected by the City's contracted waste hauler, and disposed of at one of the three landfills that are owned and operated by Orange County Waste and Recycling. The Opportunities Study Program EIR determined that nearby landfills would have adequate capacity to accommodate buildout of the EIR planning area (which includes residential sites identified in Appendix C of the 2013-2021 Housing Element). Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior				

Environmental Issues	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
----------------------	------------------------------------	----------------------------	-------------------------	----------------

certified Master/Program EIRs. No new impact will occur.

- g) **No New Impact.** Solid waste disposal service for any future residential development anticipated by the Housing Element Update would be provided by the City's contracted waste hauler. Orange County landfills are required to comply with all landfill regulations from federal, state and local regulatory agencies. The landfills are subject to regular inspections from the California Integrated Waste Management Board, including the Board's Local Enforcement Agency, the California Regional Water Quality Control Board and the South Coast Air Quality Management District to ensure compliance with all federal, state and local regulations.

The City is mandated by state law (AB 939) to reduce the quantity of solid waste entering the landfill. Policy 6.1 of the City of Lake Forest General Plan Recreation and Resources Element (Section 3.15.3) requires that the City continue to reduce the per capita production of solid waste. The City of Lake Forest Municipal Code (Chapter 16) contains policies regarding waste collection and recycling. Future residential development contemplated by the proposed 2013-2021 Housing Element Update would be required to comply with all applicable standards and regulations related to solid waste, including local regulations requiring construction/demolition recycling. Adopting and implementing the 2013-2021 Housing Element Update will not create new impacts or increase the significance of impacts identified in prior certified Master/Program EIRs. No new impact will occur.

18. Mandatory Findings of Significance				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Does the project have environmental effects, which would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Impact Discussion:

- a) **No New Impact.** The proposed project is the City of Lake Forest Housing Element Update, which is a policy document addressing demographic issues and local housing needs in the City for the planning period from 2013 to 2021. The Housing Element Update anticipates the development of additional residential units to meet the regional housing needs through year 2021. General Plan land use designations and zoning are adequate to accommodate the City's share of the regional housing need by year 2021. Adoption and implementation of the Housing Element Update would not directly remove sensitive vegetation communities or species or impact resources with cultural significance, because the Housing Element Update does not infer direct development rights. Development anticipated by the Housing Element Update would be subject to compliance with the regulations and guidelines set forth in the City's General Plan, Municipal Code, and development review process, and CEQA. Future residential development proposals may require individual assessments of potential impacts to biological and cultural resources. If necessary, additional mitigation would be required to reduce potential impacts to a less than significant level. Compliance with future project-level CEQA mitigation measures will reduce impacts.

Adoption of the 2013-2021 Housing Element Update would not significantly degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. The proposed 2013-2021 Housing Element Update will not contribute to adverse impacts on wildlife resources, individually or cumulatively. No new impact will occur.

- b) **No New Impact.** The 2013-2021 Housing Element Update is a policy document designed to assist the City in future planning. The document consists of an updated determination of housing needs within Lake Forest, and revisions to policies and procedures the City uses in addressing those needs. Housing Element Programs 11 and 12 will result in positive environmental effects related to aesthetics through exterior improvements and code enforcement activities that result in improved property maintenance. Program 11 will also result in fewer greenhouse gas emissions through improved energy efficiency. However, these positive environmental benefits are consistent with short-term and long-term environmental goals as outlined in the General Plan Conservation Element. No new impact will occur.
- c) **No New Impact.** The proposed project involves the adoption and implementation of the Housing Element Update for the City of Lake Forest. The Housing Element Update is a policy document designed to assist the City in future planning. Cumulative impacts associated with residential development consistent with General Plan land use designations have been evaluated at a program or policy-level in the General Plan Master EIR and Opportunities Study Program EIR. Furthermore, through the City's environmental review process, future development projects would be evaluated for potential cumulative impacts. Where needed, appropriate mitigation measures would be required to reduce potential impacts. Compliance with Master/Program EIR mitigation measures, applicable statutory/regulatory requirements, and future project-level CEQA mitigation measures will reduce impacts individually and cumulatively. No new impact will occur.
- d) **No New Impact.** The proposed project consists of an updated determination of housing needs within Lake Forest, and revisions to policies and procedures the City uses in addressing those needs. The Housing Element Update is a policy document designed to assist the City in future planning. Through the City's environmental review process, future development projects would be evaluated for potential adverse effects on people. Where needed, appropriate mitigation measures would be required to reduce potential impacts. Compliance with Master/Program EIR mitigation measures, applicable statutory/regulatory requirements, and future project-level CEQA mitigation measures will reduce or avoid impacts. No new impact will occur.

D. Preparers

Veronica Tam and Associates, Inc.

Veronica Tam, AICP, Principal

Rick Brady, AICP, Senior Planner and Project Manager

E. References

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1. Southern California Association of Governments, 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future, as adopted April 4, 2012. Available at: <http://scagrtp.net/>

APPENDIX A

GREENHOUSE GAS EMISSIONS



Rincon Consultants, Inc.

Environmental Scientists Planners Engineers

T R A N S M I T T A L

■ Ventura

180 North Ashwood Avenue
Ventura, California 93003
8 0 5 6 4 4 4 4 5 5
F A X 6 4 4 4 2 4 0

□ San Luis Obispo

1530 Monterey Street, Suite D
San Luis Obispo, California 93401
8 0 5 5 4 7 0 9 0 0
F A X 5 4 7 0 9 0 1

□ Monterey

437 Figueroa Street, Suite 203
Monterey, California 93940
8 3 1 3 3 3 0 3 1 0
F A X 3 3 3 0 3 4 0

□ Oakland

180 Grand Avenue, Suite 400
Oakland, California 94612
5 1 0 8 3 4 4 4 5 5
F A X 8 3 4 4 4 3 3

□ Riverside

1485 Spruce Street, Suite D101
Riverside, California 92507
9 5 1 7 8 2 0 0 6 1
F A X 7 8 2 0 0 9 7

□ Carlsbad

5135 Avenida Encinas, Suite A
Carlsbad, California 92008
7 6 0 9 1 8 9 4 4 4
F A X 9 1 8 9 4 4 9

Date: April 4, 2013; Updated September 13, 2013

To: Veronica Tam

Organization: Veronica Tam & Associates

From: Rincon Consultants, Inc. (Contact: Matt Maddox, Senior Program Manager)

Email: mmaddox@rinconconsultants.com;

cc:

Re:

This memorandum provides an overview of greenhouse gases (GHGs) and estimates GHG emissions associated with projected future housing development in the City of Lake Forest in accordance with the updated Housing Element. The development in Lake Forest necessary to accommodate the Regional Housing Needs Allocation (RHNA) as analyzed in the 2013-2020 Housing Element Update is estimated at 2,727 residential units (1,097 high density units, 497 medium density units and 1,133 low density units). Existing international, federal and state GHG regulations are discussed in the Appendix.

Greenhouse Gases and Climate Change

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). GHGs are emitted by both natural processes and human activities. GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO₂), methane (CH₄), nitrous oxides (N₂O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas CH₄ results from off-gassing associated with agricultural

practices and landfills. Man-made GHGs, many of which have greater heat-absorption potential than CO₂, include fluorinated gases and sulfur hexafluoride (SF₆) (California Environmental Protection Agency [CalEPA], 2006). Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as “carbon dioxide equivalent” (CO₂e), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a GWP of one. By contrast, methane (CH₄) has a GWP of 21, meaning its global warming effect is 21 times greater than carbon dioxide on a molecule per molecule basis (IPCC, 1997).

The accumulation of GHGs in the atmosphere regulates the earth’s temperature. Without the natural heat trapping effect of GHG, Earth’s surface would be about 34° C cooler (CalEPA, 2006). However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Greenhouse Gas Emissions Inventory

Worldwide anthropogenic emissions of GHGs were approximately 40,000 million metric tons (MMT) CO₂e in 2004, including ongoing emissions from industrial and agricultural sources, but excluding emissions from land use changes (i.e., deforestation, biomass decay) (IPCC, 2007). CO₂ emissions from fossil fuel use accounts for 56.6 percent of the total emissions of 49,000 MMT CO₂e (includes land use changes) and CO₂ emissions from all sources account for 76.7 percent of the total. Methane emissions account for 14.3 percent of GHGs and N₂O emissions account for 7.9 percent (IPCC, 2007).

Total U.S. GHG emissions were 6,821.8 MMT CO₂e in 2009 (U.S. EPA, April 2012). Total U.S. emissions have increased by 10.5 percent since 1990; emissions rose by 3.2 percent from 2009 to 2010 (U.S. EPA, April 2012). This increase was primarily due to (1) an increase in economic output resulting in an increase in energy consumption across all sectors; and (2) much warmer summer conditions resulting in an increase in electricity demand for air conditioning. Since 1990, U.S. emissions have increased at an average annual rate of 0.5 percent. In 2010, the transportation and industrial end-use sectors accounted for 32 percent and 26 percent of CO₂ emissions from fossil fuel combustion, respectively. Meanwhile, the residential and commercial end-use sectors accounted for 22 percent and 19 percent of CO₂ emissions from fossil fuel combustion, respectively (U.S. EPA, April 2012).

Based upon the California Air Resources Board (ARB) California Greenhouse Gas Inventory for 2000-2009 (ARB, October 2011), California produced 453 MMT CO₂e in 2009. The major source of GHG in California is transportation, contributing 38 percent of the state’s total GHG emissions. Electricity generation is the second largest source, contributing 23 percent of the state’s GHG emissions (ARB, October 2012). California emissions are due in part to its large size and large population compared to other states. However, a factor that reduces California’s per capita fuel use and GHG emissions, as compared to other states, is its relatively mild climate. The ARB has projected statewide unregulated GHG emissions for the year 2020 will be 507 MMT CO₂e (ARB, April 2012). These projections represent the emissions that would be expected to occur in the absence of any GHG reduction actions.

GHG Emissions from City of Lake Forest Potential Residential Units

GHG emissions associated with the anticipated residential development in Lake Forest have been calculated using methodologies discussed in the California Air Pollution Control Officers Association (CAPCOA) CEQA and Climate Change white paper (January 2008) and included the use of the California Climate Action Registry (CCAR) General Reporting Protocol (January 2009). A more

specific description of the methodology is contained in the Appendix. Emissions were calculated using the California Emissions Estimator Model (CalEEMod) 2011 Version 2011.1.1 software program (see Appendix for calculations). The analysis focuses on CO₂, N₂O, and CH₄ as these are the GHG emissions that the project would emit in the largest quantities as compared to other GHGs (such as chlorofluorocarbons [CFCs]).

The following summarizes the project's overall GHG emissions (see Appendix for full CalEEMod worksheets).

Construction Emissions

For the purpose of this analysis, construction activity is conservatively assumed to occur over a period of approximately ten years even though full buildout of the Housing Element may not be realized for a much longer period of time. Based on the CalEEMod model results, construction activity for the project would generate an estimated 64,389 metric tons of carbon dioxide equivalent (CO₂e) units (as shown in Table 1). Amortized over a 30-year period (the assumed life of the project), construction of the residential units would generate an estimated 2,146 metric tons of CO₂e per year.

Table 1
Estimated Construction Emissions of Greenhouse Gases

Emission Source	Annual Emissions	
	Emissions (metric tons)	Carbon Dioxide Equivalent (CO ₂ e)
Carbon Dioxide (CO ₂) ¹	64,306.4	64,306.4 metric tons
Methane (CH ₄) ¹	3.92	82.17 metric tons
Nitrous Oxide (N ₂ O) ¹	0.0	0.0 metric tons
Total		64,389 metric tons
Amortized over 30 years		2,146 metric tons per year

¹ See Appendix for calculations and for GHG emission factor assumptions.

Operational Indirect and Stationary Direct Emissions

Area Source Emissions. The CalEEMod model was used to calculate direct sources of air emissions located throughout the potential new residential sites. This includes hearths (fireplaces), consumer product use, architectural coatings, and landscape maintenance equipment. As shown in Table 2, the area sources would generate approximately 2,060 metric tons CO₂e per year.

Energy Use. Operation of the potential new residences would consume both electricity and natural gas (see Appendix for calculations). The generation of electricity through combustion of fossil fuels typically yields CO₂, and to a smaller extent, N₂O and CH₄. As discussed above, annual electricity and natural gas emissions can be calculated using default values from the California Energy Commission (CEC) sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS) studies which are built into the CalEEMod model.

As shown in Table 3, electricity consumption associated with the project would generate approximately 3,710 metric tons CO₂e per year. Natural gas use would generate approximately 3,290

metric tons CO₂e per year. Thus, overall energy use at the project site would generate approximately 7,000 metric tons of CO₂e per year.

Table 2
Estimated Area Source Greenhouse Gas Emissions

Emission Source	Annual Emissions (Carbon Dioxide Equivalent (CO₂e))
Architectural Coating	<0.1 metric tons
Consumer Products	<0.1 metric tons
Hearth (fireplaces)	1,991 metric tons
Landscaping	69 metric tons
Total	2,060 metric tons

Source: See Appendix for calculations and for GHG emission factor assumptions.

Table 3
Estimated Annual Energy-Related Greenhouse Gas Emissions

Emission Source	Annual Emissions (Carbon Dioxide Equivalent (CO₂e))
Electricity ¹	3,710 metric tons
Natural Gas ¹	3,290 metric tons
Total	7,000 metric tons

¹ See Appendix for calculations and for GHG emission factor assumptions.

Solid Waste Emissions. Emissions from waste generation were also calculated in CalEEMod using the default rates which are based on the Intergovernmental Panel on Climate Change's (IPCC's) methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (CalEEMod User Guide, 2011). Waste disposal rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by the California Department of Resources Recycling and Recovery (CalRecycle). Using these default rates, it is anticipated that the potential new residences would generate approximately 2,062 tons of solid waste per year according to the CalEEMod output. As shown in Table 4, based on this estimate, this aspect of the project would generate approximately 938 metric tons of CO₂e per year.

Table 4
Estimated Annual Solid Waste Greenhouse Gas Emissions

Emission Source	Annual Emissions (Carbon Dioxide Equivalent (CO₂e))
Solid Waste*	938 metric tons

Sources: See Appendix for calculations and for GHG emission factor assumptions.

** Please note that the solid waste generation rate uses the CalEEMod default rate of 6.42 lbs/day of solid waste for low density residential units and 2.52 lbs/day for medium and high density residential units. This is a more updated rate of solid waste generation than was used in the OSA PEIR (2006) which utilized a City of Lake Forest rate of 7 pounds of solid per day for all dwelling unit types (regardless of density type).*

Water Use Emissions. Emissions from water and wastewater usage calculated in CalEEMod were based on the default electricity intensity from the California Energy Commission's (CEC) 2006 Refining Estimates of Water-Related Energy Use in California using the average values for Northern and Southern California. It is anticipated that the project would use approximately 288 million gallons of water per year. Based on the amount of electricity generated in order to supply this amount of water, as shown in Table 5, this aspect of the project would generate approximately 1,199 metric tons of CO₂e per year.

Table 5
Estimated Greenhouse Gas Emissions from Water Use

Emission Source	Annual Emissions (Carbon Dioxide Equivalent (CO₂e))
Water Use*	1,199 metric tons

Sources: See Appendix for calculations and for GHG emission factor assumptions.

** Please note that the water generation rate uses the CalEEMod default rates based on the CEC's 2006 Refining Estimates of Water-Related Energy Use. This is slightly different than was used in the OSA PEIR (2006) which utilized the Water Supply Assessment prepared by IWMD, 2005.*

Transportation Emissions. Mobile source GHG emissions were estimated using the average daily trips for residences and by the total vehicle miles traveled (VMT) estimated in CalEEMod. Based on the CalEEMod model estimate, potential development would generate approximately 70,980,262 annual VMT¹.

Table 6 shows the estimated mobile emissions of GHGs for the project based on the estimated annual VMT. As noted above, the CalEEMod model does not calculate N₂O emissions related to mobile sources. As such, N₂O emissions were calculated based on the project's VMT using calculation methods provided by the California Climate Action Registry General Reporting Protocol (January

¹ Please note that the OSA PEIR (see page 7-26) estimated that a VMT of 3,882,975 per day would occur which takes into consideration residential and non-residential projects. The 70,980,262 VMT per year (194,466 VMT per day) associated with the approximately 2,727 housing units analyzed in this memo was included in the total VMT analyzed in the OSA PEIR.

2009). As shown in Table 6 below, the project would result in approximately 34,137 metric tons of CO₂e units associated with mobile emissions.

Table 6
Estimated Annual Mobile Emissions of Greenhouse Gases

Emission Source	Annual Emissions (Carbon Dioxide Equivalent (CO₂e))
Mobile Emissions (CO ₂ & CH ₄) ¹	32,708 metric tons
Mobile Emissions (N ₂ O) ²	1,429 metric tons
Total	34,137 metric tons

¹ See Appendix for calculations in CalEEMod Model output.

² See Appendix for calculations according to California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009, page 30-35.

Combined Construction, Stationary and Mobile Source Emissions. Table 7 combines the construction, operational and mobile GHG emissions associated with onsite development for the proposed project. Construction emissions associated with construction activity are amortized over 30 years (the anticipated life of the project).

For the proposed project, the combined annual emissions would total approximately 47,480 metric tons per year in CO₂e units. Based on the number of proposed residences (2,727) and an estimated 2.953 person per household in Lake Forest (California Department of Finance, 2012), the proposed project would result in approximately 5.90 metric tons CO₂e per person per year. This would be below the plan-based threshold of 6.6 metric tons CO₂e per service population (defined to include both residents and employees) per year for use in the South Coast region (SCAQMD, "Proposed Tier 4 Performance Standards, September 2010).

Table 7
Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions
Construction	2,146 metric tons CO ₂ e
Operational <div style="display: flex; justify-content: space-between; padding: 0 10px;"> <div>Area</div> <div>2,060 metric tons CO₂e</div> </div> <div style="display: flex; justify-content: space-between; padding: 0 10px;"> <div>Energy</div> <div>7,000 metric tons CO₂e</div> </div> <div style="display: flex; justify-content: space-between; padding: 0 10px;"> <div>Solid Waste</div> <div>938 metric tons CO₂e</div> </div> <div style="display: flex; justify-content: space-between; padding: 0 10px;"> <div>Water</div> <div>1,199 metric tons CO₂e</div> </div>	
Mobile	34,137 metric tons CO ₂ e
Total	47,480 metric tons CO₂e
CO₂e per capita*	5.90 metric tons CO₂e per person per year

*Sources: See Appendix for calculations and for GHG emission factor assumptions. **
Based on the estimated number of people per household of 2.953 in Lake Forest (California Department of Finance, January 2012) and an estimated number of approximately 2,727 residential units proposed.

Appendix

Methodology

CalEEMod Worksheets

N20 – Transportation - GHG Calculation Worksheet

Summary of GHG Regulations

GHG Analysis Methodology

Calculations of CO₂, CH₄, and N₂O emissions are provided to identify the magnitude of potential project effects. The analysis focuses on CO₂, CH₄, and N₂O because these make up 98.9 percent of all GHG emissions by volume (IPCC, 2007) and are the GHG emissions that the project would emit in the largest quantities. Fluorinated gases, such as HFCs, PFCs, and SF₆, were also considered for the analysis. However, because the project would only involve residential development, the quantity of fluorinated gases would not be significant since fluorinated gases are primarily associated with industrial processes. Emissions of all GHGs are converted into their equivalent weight in CO₂ (CO₂e). Minimal amounts of other main GHGs (such as chlorofluorocarbons [CFCs]) would be emitted; however, these other GHG emissions would not substantially add to the calculated CO₂e amounts. Calculations are based on the methodologies discussed in the California Air Pollution Control Officers Association (CAPCOA) *CEQA and Climate Change* white paper (January 2008) and included the use of the California Climate Action Registry (CCAR) General Reporting Protocol (January 2009).

On-Site Operational Emissions

Operational emissions from energy use (electricity and natural gas use) for the project were estimated using the California Emissions Estimator Model (CalEEMod) 2011 Version 2011.1.1 software program (see Appendix for calculations). The default values on which the CalEEMod software program are based include the California Energy Commission (CEC) sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS) studies. CalEEMod provides operational emissions of CO₂, N₂O and CH₄. This methodology is considered reasonable and reliable for use, as it has been subjected to peer review by numerous public and private stakeholders, and in particular by the CEC. It is also recommended by CAPCOA (January 2008).

Emissions associated with area sources, including hearths (fireplaces), consumer products, landscape maintenance, and architectural coating were calculated in CalEEMod and utilize standard emission rates from CARB, U.S. EPA, and district supplied emission factor values (CalEEMod User Guide, 2011).

Emissions from waste generation were also calculated in CalEEMod and are based on the IPCC's methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (CalEEMod User Guide, 2011). Waste disposal rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by the California Department of Resources Recycling and Recovery (CalRecycle).

Emissions from water and wastewater usage calculated in CalEEMod were based on the default electricity intensity from the CEC's 2006 Refining Estimates of Water-Related Energy Use in California using the average values for Northern and Southern California.

Direct Emissions from Mobile Combustion

Emissions of CO₂ and CH₄ from transportation sources for the proposed project were quantified using the CalEEMod software model. Because the CalEEMod software program does not calculate N₂O emissions from mobile sources, N₂O emissions were quantified using the California Climate Action Registry General Reporting Protocol (January 2009) direct emissions factors for mobile combustion (see Appendix for calculations). The estimate of total daily trips associated with the proposed project was based on the standard Institute of Transportation Engineers (ITE) vehicle trip rates (used in CalEEMod) and was calculated and extrapolated to derive total annual mileage in CalEEMod. Emission rates for N₂O

emissions were based on the vehicle mix output generated by CalEEMod and the emission factors found in the California Climate Action Registry General Reporting Protocol.

A limitation of the quantitative analysis of emissions from mobile combustion is that emission models, such as CalEEMod, evaluate aggregate emissions, meaning that all vehicle trips and related emissions assigned to a project are assumed to be new trips and emissions generated by the project itself. Such models do not demonstrate, with respect to a regional air quality impact, what proportion of these emissions are actually “new” emissions, specifically attributable to the project in question. For most projects, the main contributor to regional air quality emissions is from motor vehicles; however, the quantity of vehicle trips appropriately characterized as “new” is usually uncertain as traffic associated with a project may be relocated trips from other locales. Therefore, because the proportion of “new” versus relocated trips is unknown, the VMT estimate generated by CalEEMod is used as a conservative, “worst-case” estimate.

Construction Emissions

Although construction activity is addressed in this analysis, CAPCOA does not discuss whether any of the suggested threshold approaches (as discussed below in *GHG Cumulative Significance*) adequately address impacts from temporary construction activity. As stated in the *CEQA and Climate Change* white paper, “more study is needed to make this assessment or to develop separate thresholds for construction activity” (CAPCOA, 2008). Nevertheless, air districts such as the SCAQMD (2011) have recommended amortizing construction-related emissions over a 30-year period in conjunction with the proposed project’s operational emissions.

Construction of the proposed project would generate temporary GHG emissions primarily due to the operation of construction equipment and truck trips. Site preparation and grading typically generate the greatest amount of emissions due to the use of grading equipment and soil hauling. The CalEEMod software program was used to estimate emissions associated with the construction period, based on parameters such as the duration of construction activity, area of disturbance, and anticipated equipment use during construction.

Lake Forest Housing Element
Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Apartments High Rise	1097	Dwelling Unit
Apartments Mid Rise	497	Dwelling Unit
Single Family Housing	1133	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Utility Company	Southern California Edison
Climate Zone	8	Precipitation Freq (Days)	30		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Construction Phase - 10 year buildout

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	4.23	29.69	24.26	0.05	32.13	1.45	33.58	16.45	1.45	17.90	0.00	4,327.84	4,327.84	0.35	0.00	4,335.11
2015	6.31	41.50	37.81	0.08	33.72	2.13	35.86	16.53	2.13	18.66	0.00	7,023.76	7,023.76	0.52	0.00	7,034.63
2016	5.92	38.24	35.98	0.08	33.72	1.94	35.67	16.53	1.94	18.47	0.00	6,965.84	6,965.84	0.48	0.00	6,976.02
2017	5.53	35.10	34.23	0.08	33.71	1.76	35.47	16.53	1.76	18.29	0.00	6,896.73	6,896.73	0.45	0.00	6,906.20
2018	5.21	32.45	32.88	0.08	33.72	1.60	35.32	16.43	1.58	18.02	0.00	6,882.84	6,882.84	0.42	0.00	6,891.71
2019	4.90	29.89	31.59	0.08	33.72	1.45	35.18	16.43	1.44	17.87	0.00	6,845.31	6,845.31	0.40	0.00	6,853.64
2020	4.63	27.67	30.56	0.08	33.74	1.32	35.06	16.43	1.30	17.74	0.00	6,836.55	6,836.55	0.38	0.00	6,844.42
2021	4.36	25.41	29.47	0.08	33.72	1.19	34.92	16.43	1.18	17.61	0.00	6,783.64	6,783.64	0.35	0.00	6,791.02
2022	4.12	23.38	28.46	0.08	33.71	1.08	34.79	16.43	1.07	17.50	0.00	6,728.74	6,728.74	0.33	0.00	6,735.69
2023	2.96	16.28	20.98	0.06	32.90	0.75	33.66	16.42	0.74	17.16	0.00	5,015.15	5,015.15	0.24	0.00	5,020.13
Total	48.17	299.61	306.22	0.75	334.79	14.67	349.51	164.61	14.59	179.22	0.00	64,306.40	64,306.40	3.92	0.00	64,388.57

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	4.23	29.69	24.26	0.05	30.53	1.45	31.98	16.45	1.45	17.90	0.00	4,327.84	4,327.84	0.35	0.00	4,335.11
2015	6.31	41.50	37.81	0.08	30.61	2.13	32.74	16.53	2.13	18.66	0.00	7,023.76	7,023.76	0.52	0.00	7,034.63
2016	5.92	38.24	35.98	0.08	30.61	1.94	32.55	16.53	1.94	18.47	0.00	6,965.84	6,965.84	0.48	0.00	6,976.02
2017	5.53	35.10	34.23	0.08	30.60	1.76	32.37	16.53	1.76	18.29	0.00	6,896.73	6,896.73	0.45	0.00	6,906.20
2018	5.21	32.45	32.88	0.08	30.61	1.60	32.21	16.43	1.58	18.02	0.00	6,882.84	6,882.84	0.42	0.00	6,891.71
2019	4.90	29.89	31.59	0.08	30.61	1.45	32.06	16.43	1.44	17.87	0.00	6,845.31	6,845.31	0.40	0.00	6,853.64
2020	4.63	27.67	30.56	0.08	30.61	1.32	31.93	16.43	1.30	17.74	0.00	6,836.55	6,836.55	0.38	0.00	6,844.42
2021	4.36	25.41	29.47	0.08	30.61	1.19	31.80	16.43	1.18	17.61	0.00	6,783.64	6,783.64	0.35	0.00	6,791.02
2022	4.12	23.38	28.46	0.08	30.60	1.08	31.69	16.43	1.07	17.50	0.00	6,728.74	6,728.74	0.33	0.00	6,735.69
2023	2.96	16.28	20.98	0.06	30.57	0.75	31.32	16.42	0.74	17.16	0.00	5,015.15	5,015.15	0.24	0.00	5,020.13
Total	48.17	299.61	306.22	0.75	305.96	14.67	320.65	164.61	14.59	179.22	0.00	64,306.40	64,306.40	3.92	0.00	64,388.57

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	24.98	0.73	59.68	0.03		0.00	2.91		0.00	2.91	289.66	1,737.71	2,027.37	0.96	0.04	2,059.90
Energy	0.36	3.09	1.31	0.02		0.00	0.25		0.00	0.25	0.00	7,330.19	7,330.19	0.24	0.13	7,375.48
Mobile	19.94	39.07	206.10	0.37	38.65	1.78	40.44	1.44	1.78	3.22	0.00	32,680.01	32,680.01	1.35	0.00	32,708.44
Waste						0.00	0.00		0.00	0.00	418.49	0.00	418.49	24.73	0.00	937.87
Water						0.00	0.00		0.00	0.00	0.00	1,036.90	1,036.90	5.47	0.15	1,198.97
Total	45.28	42.89	267.09	0.42	38.65	1.78	43.60	1.44	1.78	6.38	708.15	42,784.81	43,492.96	32.75	0.32	44,280.66

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	24.98	0.73	59.68	0.03		0.00	2.91		0.00	2.91	289.66	1,737.71	2,027.37	0.96	0.04	2,059.90
Energy	0.33	2.82	1.20	0.02		0.00	0.23		0.00	0.23	0.00	6,957.05	6,957.05	0.23	0.12	7,000.06
Mobile	19.94	39.07	206.10	0.37	38.65	1.78	40.44	1.44	1.78	3.22	0.00	32,680.01	32,680.01	1.35	0.00	32,708.44
Waste						0.00	0.00		0.00	0.00	209.25	0.00	209.25	12.37	0.00	468.94
Water						0.00	0.00		0.00	0.00	0.00	901.92	901.92	4.38	0.12	1,032.03
Total	45.25	42.62	266.98	0.42	38.65	1.78	43.58	1.44	1.78	6.36	498.91	42,276.69	42,775.60	19.29	0.28	43,269.37

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.10	8.63	5.35	0.01		0.42	0.42		0.42	0.42	0.00	888.94	888.94	0.09	0.00	890.81
Total	1.10	8.63	5.35	0.01		0.42	0.42		0.42	0.42	0.00	888.94	888.94	0.09	0.00	890.81

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.12	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	20.26	20.26	0.00	0.00	20.28
Total	0.01	0.01	0.12	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	20.26	20.26	0.00	0.00	20.28

3.2 Demolition - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.10	8.63	5.35	0.01		0.42	0.42		0.42	0.42	0.00	888.94	888.94	0.09	0.00	890.81
Total	1.10	8.63	5.35	0.01		0.42	0.42		0.42	0.42	0.00	888.94	888.94	0.09	0.00	890.81

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.26	20.26	0.00	0.00	20.28
Total	0.01	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.26	20.26	0.00	0.00	20.28

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.03	7.96	5.17	0.01		0.38	0.38		0.38	0.38	0.00	888.95	888.95	0.08	0.00	890.70
Total	1.03	7.96	5.17	0.01		0.38	0.38		0.38	0.38	0.00	888.95	888.95	0.08	0.00	890.70

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.11	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	19.81	19.81	0.00	0.00	19.83
Total	0.01	0.01	0.11	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	19.81	19.81	0.00	0.00	19.83

3.2 Demolition - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.03	7.96	5.17	0.01		0.38	0.38		0.38	0.38	0.00	888.95	888.95	0.08	0.00	890.70
Total	1.03	7.96	5.17	0.01		0.38	0.38		0.38	0.38	0.00	888.95	888.95	0.08	0.00	890.70

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.81	19.81	0.00	0.00	19.83
Total	0.01	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.81	19.81	0.00	0.00	19.83

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.97	7.32	5.00	0.01		0.35	0.35		0.35	0.35	0.00	888.95	888.95	0.08	0.00	890.60
Total	0.97	7.32	5.00	0.01		0.35	0.35		0.35	0.35	0.00	888.95	888.95	0.08	0.00	890.60

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.10	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	19.26	19.26	0.00	0.00	19.27
Total	0.01	0.01	0.10	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	19.26	19.26	0.00	0.00	19.27

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.97	7.32	5.00	0.01		0.35	0.35		0.35	0.35	0.00	888.95	888.95	0.08	0.00	890.60
Total	0.97	7.32	5.00	0.01		0.35	0.35		0.35	0.35	0.00	888.95	888.95	0.08	0.00	890.60

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.26	19.26	0.00	0.00	19.27
Total	0.01	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.26	19.26	0.00	0.00	19.27

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.91	6.69	4.83	0.01		0.31	0.31		0.31	0.31	0.00	885.54	885.54	0.07	0.00	887.08
Total	0.91	6.69	4.83	0.01		0.31	0.31		0.31	0.31	0.00	885.54	885.54	0.07	0.00	887.08

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	18.77	18.77	0.00	0.00	18.78
Total	0.01	0.01	0.09	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	18.77	18.77	0.00	0.00	18.78

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.91	6.69	4.83	0.01		0.31	0.31		0.31	0.31	0.00	885.54	885.54	0.07	0.00	887.08
Total	0.91	6.69	4.83	0.01		0.31	0.31		0.31	0.31	0.00	885.54	885.54	0.07	0.00	887.08

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.77	18.77	0.00	0.00	18.78
Total	0.01	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.77	18.77	0.00	0.00	18.78

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.85	6.15	4.71	0.01		0.28	0.28		0.28	0.28	0.00	888.95	888.95	0.07	0.00	890.38
Total	0.85	6.15	4.71	0.01		0.28	0.28		0.28	0.28	0.00	888.95	888.95	0.07	0.00	890.38

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	18.44	18.44	0.00	0.00	18.46
Total	0.01	0.01	0.09	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	18.44	18.44	0.00	0.00	18.46

3.2 Demolition - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.85	6.15	4.71	0.01		0.28	0.28		0.28	0.28	0.00	888.95	888.95	0.07	0.00	890.38
Total	0.85	6.15	4.71	0.01		0.28	0.28		0.28	0.28	0.00	888.95	888.95	0.07	0.00	890.38

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.44	18.44	0.00	0.00	18.46
Total	0.01	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.44	18.44	0.00	0.00	18.46

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.80	5.63	4.59	0.01		0.25	0.25		0.25	0.25	0.00	888.95	888.95	0.06	0.00	890.30
Total	0.80	5.63	4.59	0.01		0.25	0.25		0.25	0.25	0.00	888.95	888.95	0.06	0.00	890.30

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.08	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	18.07	18.07	0.00	0.00	18.09
Total	0.01	0.01	0.08	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	18.07	18.07	0.00	0.00	18.09

3.2 Demolition - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.80	5.63	4.59	0.01		0.25	0.25		0.25	0.25	0.00	888.95	888.95	0.06	0.00	890.30
Total	0.80	5.63	4.59	0.01		0.25	0.25		0.25	0.25	0.00	888.95	888.95	0.06	0.00	890.30

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.07	18.07	0.00	0.00	18.09
Total	0.01	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.07	18.07	0.00	0.00	18.09

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.75	5.17	4.50	0.01		0.23	0.23		0.23	0.23	0.00	892.35	892.35	0.06	0.00	893.64
Total	0.75	5.17	4.50	0.01		0.23	0.23		0.23	0.23	0.00	892.35	892.35	0.06	0.00	893.64

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.07	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	17.80	17.80	0.00	0.00	17.81
Total	0.01	0.01	0.07	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	17.80	17.80	0.00	0.00	17.81

3.2 Demolition - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.75	5.17	4.50	0.01		0.23	0.23		0.23	0.23	0.00	892.35	892.35	0.06	0.00	893.64
Total	0.75	5.17	4.50	0.01		0.23	0.23		0.23	0.23	0.00	892.35	892.35	0.06	0.00	893.64

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.80	17.80	0.00	0.00	17.81
Total	0.01	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.80	17.80	0.00	0.00	17.81

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.71	4.72	4.39	0.01		0.20	0.20		0.20	0.20	0.00	888.94	888.94	0.06	0.00	890.15
Total	0.71	4.72	4.39	0.01		0.20	0.20		0.20	0.20	0.00	888.94	888.94	0.06	0.00	890.15

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.07	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	17.46	17.46	0.00	0.00	17.48
Total	0.01	0.01	0.07	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	17.46	17.46	0.00	0.00	17.48

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.71	4.72	4.39	0.01		0.20	0.20		0.20	0.20	0.00	888.94	888.94	0.06	0.00	890.15
Total	0.71	4.72	4.39	0.01		0.20	0.20		0.20	0.20	0.00	888.94	888.94	0.06	0.00	890.15

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.46	17.46	0.00	0.00	17.48
Total	0.01	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.46	17.46	0.00	0.00	17.48

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.67	4.30	4.29	0.01		0.18	0.18		0.18	0.18	0.00	885.54	885.54	0.05	0.00	886.68
Total	0.67	4.30	4.29	0.01		0.18	0.18		0.18	0.18	0.00	885.54	885.54	0.05	0.00	886.68

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.07	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	17.11	17.11	0.00	0.00	17.12
Total	0.01	0.01	0.07	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	17.11	17.11	0.00	0.00	17.12

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.67	4.30	4.29	0.01		0.18	0.18		0.18	0.18	0.00	885.54	885.54	0.05	0.00	886.68
Total	0.67	4.30	4.29	0.01		0.18	0.18		0.18	0.18	0.00	885.54	885.54	0.05	0.00	886.68

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.11	17.11	0.00	0.00	17.12
Total	0.01	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.11	17.11	0.00	0.00	17.12

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.49	3.03	3.24	0.01		0.13	0.13		0.13	0.13	0.00	681.18	681.18	0.04	0.00	682.01
Total	0.49	3.03	3.24	0.01		0.13	0.13		0.13	0.13	0.00	681.18	681.18	0.04	0.00	682.01

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.00	0.05	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	12.96	12.96	0.00	0.00	12.97
Total	0.01	0.00	0.05	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	12.96	12.96	0.00	0.00	12.97

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.49	3.03	3.24	0.01		0.13	0.13		0.13	0.13	0.00	681.18	681.18	0.04	0.00	682.01
Total	0.49	3.03	3.24	0.01		0.13	0.13		0.13	0.13	0.00	681.18	681.18	0.04	0.00	682.01

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.96	12.96	0.00	0.00	12.97
Total	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.96	12.96	0.00	0.00	12.97

3.3 Architectural Coating - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.01					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.26	0.26	0.00	0.00	0.26
Total	0.01	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.26	0.26	0.00	0.00	0.26

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.22	3.22	0.00	0.00	3.22
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.22	3.22	0.00	0.00	3.22

3.3 Architectural Coating - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.01					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.26	0.26	0.00	0.00	0.26
Total	0.01	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.26	0.26	0.00	0.00	0.26

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.22	3.22	0.00	0.00	3.22
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.22	3.22	0.00	0.00	3.22

3.4 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.98	7.82	4.50	0.01		0.38	0.38		0.38	0.38	0.00	757.98	757.98	0.08	0.00	759.65
Total	0.98	7.82	4.50	0.01	22.28	0.38	22.66	12.25	0.38	12.63	0.00	757.98	757.98	0.08	0.00	759.65

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.11	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	19.46	19.46	0.00	0.00	19.49
Total	0.01	0.01	0.11	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	19.46	19.46	0.00	0.00	19.49

3.4 Site Preparation - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.98	7.82	4.50	0.01		0.38	0.38		0.38	0.38	0.00	757.98	757.98	0.08	0.00	759.65
Total	0.98	7.82	4.50	0.01	22.28	0.38	22.66	12.25	0.38	12.63	0.00	757.98	757.98	0.08	0.00	759.65

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.46	19.46	0.00	0.00	19.49
Total	0.01	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.46	19.46	0.00	0.00	19.49

3.4 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.15	9.10	5.34	0.01		0.43	0.43		0.43	0.43	0.00	946.57	946.57	0.09	0.00	948.54
Total	1.15	9.10	5.34	0.01	22.28	0.43	22.71	12.25	0.43	12.68	0.00	946.57	946.57	0.09	0.00	948.54

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.13	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	23.77	23.77	0.00	0.00	23.79
Total	0.01	0.01	0.13	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	23.77	23.77	0.00	0.00	23.79

3.4 Site Preparation - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.15	9.10	5.34	0.01		0.43	0.43		0.43	0.43	0.00	946.57	946.57	0.09	0.00	948.54
Total	1.15	9.10	5.34	0.01	22.28	0.43	22.71	12.25	0.43	12.68	0.00	946.57	946.57	0.09	0.00	948.54

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.77	23.77	0.00	0.00	23.79
Total	0.01	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.77	23.77	0.00	0.00	23.79

3.4 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.09	8.46	5.09	0.01		0.39	0.39		0.39	0.39	0.00	946.57	946.57	0.09	0.00	948.44
Total	1.09	8.46	5.09	0.01	22.28	0.39	22.67	12.25	0.39	12.64	0.00	946.57	946.57	0.09	0.00	948.44

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.12	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	23.11	23.11	0.00	0.00	23.13
Total	0.01	0.01	0.12	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	23.11	23.11	0.00	0.00	23.13

3.4 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.09	8.46	5.09	0.01		0.39	0.39		0.39	0.39	0.00	946.57	946.57	0.09	0.00	948.44
Total	1.09	8.46	5.09	0.01	22.28	0.39	22.67	12.25	0.39	12.64	0.00	946.57	946.57	0.09	0.00	948.44

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.11	23.11	0.00	0.00	23.13
Total	0.01	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.11	23.11	0.00	0.00	23.13

3.4 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.03	7.84	4.84	0.01		0.35	0.35		0.35	0.35	0.00	942.94	942.94	0.08	0.00	944.69
Total	1.03	7.84	4.84	0.01	22.28	0.35	22.63	12.25	0.35	12.60	0.00	942.94	942.94	0.08	0.00	944.69

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.11	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	22.52	22.52	0.00	0.00	22.54
Total	0.01	0.01	0.11	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	22.52	22.52	0.00	0.00	22.54

3.4 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.03	7.84	4.84	0.01		0.35	0.35		0.35	0.35	0.00	942.94	942.94	0.08	0.00	944.69
Total	1.03	7.84	4.84	0.01	22.28	0.35	22.63	12.25	0.35	12.60	0.00	942.94	942.94	0.08	0.00	944.69

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.52	22.52	0.00	0.00	22.54
Total	0.01	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.52	22.52	0.00	0.00	22.54

3.4 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.97	7.31	4.66	0.01		0.32	0.32		0.32	0.32	0.00	946.57	946.57	0.08	0.00	948.21
Total	0.97	7.31	4.66	0.01	22.28	0.32	22.60	12.25	0.32	12.57	0.00	946.57	946.57	0.08	0.00	948.21

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.10	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	22.13	22.13	0.00	0.00	22.15
Total	0.01	0.01	0.10	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	22.13	22.13	0.00	0.00	22.15

3.4 Site Preparation - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.97	7.31	4.66	0.01		0.32	0.32		0.32	0.32	0.00	946.57	946.57	0.08	0.00	948.21
Total	0.97	7.31	4.66	0.01	22.28	0.32	22.60	12.25	0.32	12.57	0.00	946.57	946.57	0.08	0.00	948.21

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.13	22.13	0.00	0.00	22.15
Total	0.01	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.13	22.13	0.00	0.00	22.15

3.4 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.92	6.79	4.48	0.01		0.29	0.29		0.29	0.29	0.00	946.57	946.57	0.07	0.00	948.13
Total	0.92	6.79	4.48	0.01	22.28	0.29	22.57	12.25	0.29	12.54	0.00	946.57	946.57	0.07	0.00	948.13

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.10	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	21.69	21.69	0.00	0.00	21.71
Total	0.01	0.01	0.10	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	21.69	21.69	0.00	0.00	21.71

3.4 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.92	6.79	4.48	0.01		0.29	0.29		0.29	0.29	0.00	946.57	946.57	0.07	0.00	948.13
Total	0.92	6.79	4.48	0.01	22.28	0.29	22.57	12.25	0.29	12.54	0.00	946.57	946.57	0.07	0.00	948.13

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.69	21.69	0.00	0.00	21.71
Total	0.01	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.69	21.69	0.00	0.00	21.71

3.4 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.87	6.32	4.33	0.01		0.26	0.26		0.26	0.26	0.00	950.20	950.20	0.07	0.00	951.68
Total	0.87	6.32	4.33	0.01	22.28	0.26	22.54	12.25	0.26	12.51	0.00	950.20	950.20	0.07	0.00	951.68

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	21.36	21.36	0.00	0.00	21.38
Total	0.01	0.01	0.09	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	21.36	21.36	0.00	0.00	21.38

3.4 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.87	6.32	4.33	0.01		0.26	0.26		0.26	0.26	0.00	950.20	950.20	0.07	0.00	951.68
Total	0.87	6.32	4.33	0.01	22.28	0.26	22.54	12.25	0.26	12.51	0.00	950.20	950.20	0.07	0.00	951.68

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.36	21.36	0.00	0.00	21.38
Total	0.01	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.36	21.36	0.00	0.00	21.38

3.4 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.82	5.85	4.17	0.01		0.24	0.24		0.24	0.24	0.00	946.57	946.57	0.07	0.00	947.97
Total	0.82	5.85	4.17	0.01	22.28	0.24	22.52	12.25	0.24	12.49	0.00	946.57	946.57	0.07	0.00	947.97

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.08	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	20.96	20.96	0.00	0.00	20.97
Total	0.01	0.01	0.08	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	20.96	20.96	0.00	0.00	20.97

3.4 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.82	5.85	4.17	0.01		0.24	0.24		0.24	0.24	0.00	946.57	946.57	0.07	0.00	947.97
Total	0.82	5.85	4.17	0.01	22.28	0.24	22.52	12.25	0.24	12.49	0.00	946.57	946.57	0.07	0.00	947.97

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.96	20.96	0.00	0.00	20.97
Total	0.01	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.96	20.96	0.00	0.00	20.97

3.4 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.78	5.40	4.03	0.01		0.22	0.22		0.22	0.22	0.00	942.94	942.94	0.06	0.00	944.27
Total	0.78	5.40	4.03	0.01	22.28	0.22	22.50	12.25	0.22	12.47	0.00	942.94	942.94	0.06	0.00	944.27

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.08	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	20.53	20.53	0.00	0.00	20.55
Total	0.01	0.01	0.08	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	20.53	20.53	0.00	0.00	20.55

3.4 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.78	5.40	4.03	0.01		0.22	0.22		0.22	0.22	0.00	942.94	942.94	0.06	0.00	944.27
Total	0.78	5.40	4.03	0.01	22.28	0.22	22.50	12.25	0.22	12.47	0.00	942.94	942.94	0.06	0.00	944.27

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.53	20.53	0.00	0.00	20.55
Total	0.01	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.53	20.53	0.00	0.00	20.55

3.4 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.49	3.30	2.58	0.01		0.13	0.13		0.13	0.13	0.00	620.17	620.17	0.04	0.00	621.00
Total	0.49	3.30	2.58	0.01	22.28	0.13	22.41	12.25	0.13	12.38	0.00	620.17	620.17	0.04	0.00	621.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.00	0.05	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	13.30	13.30	0.00	0.00	13.31
Total	0.01	0.00	0.05	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	13.30	13.30	0.00	0.00	13.31

3.4 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					22.28	0.00	22.28	12.25	0.00	12.25	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.49	3.30	2.58	0.01		0.13	0.13		0.13	0.13	0.00	620.17	620.17	0.04	0.00	621.00
Total	0.49	3.30	2.58	0.01	22.28	0.13	22.41	12.25	0.13	12.38	0.00	620.17	620.17	0.04	0.00	621.00

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.30	13.30	0.00	0.00	13.31
Total	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.30	13.30	0.00	0.00	13.31

3.5 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.93	7.48	4.19	0.01		0.34	0.34		0.34	0.34	0.00	812.32	812.32	0.08	0.00	813.90
Total	0.93	7.48	4.19	0.01	8.17	0.34	8.51	4.13	0.34	4.47	0.00	812.32	812.32	0.08	0.00	813.90

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.10	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	17.07	17.07	0.00	0.00	17.09
Total	0.01	0.01	0.10	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	17.07	17.07	0.00	0.00	17.09

3.5 Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.93	7.48	4.19	0.01		0.34	0.34		0.34	0.34	0.00	812.32	812.32	0.08	0.00	813.90
Total	0.93	7.48	4.19	0.01	8.17	0.34	8.51	4.13	0.34	4.47	0.00	812.32	812.32	0.08	0.00	813.90

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.07	17.07	0.00	0.00	17.09
Total	0.01	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.07	17.07	0.00	0.00	17.09

3.5 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.38	10.86	6.40	0.01		0.50	0.50		0.50	0.50	0.00	1,284.94	1,284.94	0.11	0.00	1,287.28
Total	1.38	10.86	6.40	0.01	8.17	0.50	8.67	4.13	0.50	4.63	0.00	1,284.94	1,284.94	0.11	0.00	1,287.28

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.14	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	26.41	26.41	0.00	0.00	26.44
Total	0.01	0.01	0.14	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	26.41	26.41	0.00	0.00	26.44

3.5 Grading - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.38	10.86	6.40	0.01		0.50	0.50		0.50	0.50	0.00	1,284.94	1,284.94	0.11	0.00	1,287.28
Total	1.38	10.86	6.40	0.01	8.17	0.50	8.67	4.13	0.50	4.63	0.00	1,284.94	1,284.94	0.11	0.00	1,287.28

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.41	26.41	0.00	0.00	26.44
Total	0.01	0.01	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.41	26.41	0.00	0.00	26.44

3.5 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.30	9.95	6.19	0.01		0.45	0.45		0.45	0.45	0.00	1,284.94	1,284.94	0.11	0.00	1,287.15
Total	1.30	9.95	6.19	0.01	8.17	0.45	8.62	4.13	0.45	4.58	0.00	1,284.94	1,284.94	0.11	0.00	1,287.15

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.13	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	25.67	25.67	0.00	0.00	25.70
Total	0.01	0.01	0.13	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	25.67	25.67	0.00	0.00	25.70

3.5 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.30	9.95	6.19	0.01		0.45	0.45		0.45	0.45	0.00	1,284.94	1,284.94	0.11	0.00	1,287.15
Total	1.30	9.95	6.19	0.01	8.17	0.45	8.62	4.13	0.45	4.58	0.00	1,284.94	1,284.94	0.11	0.00	1,287.15

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.67	25.67	0.00	0.00	25.70
Total	0.01	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.67	25.67	0.00	0.00	25.70

3.5 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.22	9.07	5.98	0.01		0.40	0.40		0.40	0.40	0.00	1,280.02	1,280.02	0.10	0.00	1,282.09
Total	1.22	9.07	5.98	0.01	8.17	0.40	8.57	4.13	0.40	4.53	0.00	1,280.02	1,280.02	0.10	0.00	1,282.09

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.12	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	25.02	25.02	0.00	0.00	25.05
Total	0.01	0.01	0.12	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	25.02	25.02	0.00	0.00	25.05

3.5 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.22	9.07	5.98	0.01		0.40	0.40		0.40	0.40	0.00	1,280.02	1,280.02	0.10	0.00	1,282.09
Total	1.22	9.07	5.98	0.01	8.17	0.40	8.57	4.13	0.40	4.53	0.00	1,280.02	1,280.02	0.10	0.00	1,282.09

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.02	25.02	0.00	0.00	25.05
Total	0.01	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.02	25.02	0.00	0.00	25.05

3.5 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.15	8.32	5.84	0.01		0.36	0.36		0.36	0.36	0.00	1,284.94	1,284.94	0.09	0.00	1,286.89
Total	1.15	8.32	5.84	0.01	8.17	0.36	8.53	4.13	0.36	4.49	0.00	1,284.94	1,284.94	0.09	0.00	1,286.89

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.11	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	24.59	24.59	0.00	0.00	24.61
Total	0.01	0.01	0.11	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	24.59	24.59	0.00	0.00	24.61

3.5 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.15	8.32	5.84	0.01		0.36	0.36		0.36	0.36	0.00	1,284.94	1,284.94	0.09	0.00	1,286.89
Total	1.15	8.32	5.84	0.01	8.17	0.36	8.53	4.13	0.36	4.49	0.00	1,284.94	1,284.94	0.09	0.00	1,286.89

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.59	24.59	0.00	0.00	24.61
Total	0.01	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.59	24.59	0.00	0.00	24.61

3.5 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.08	7.59	5.70	0.01		0.32	0.32		0.32	0.32	0.00	1,284.94	1,284.94	0.09	0.00	1,286.78
Total	1.08	7.59	5.70	0.01	8.17	0.32	8.49	4.13	0.32	4.45	0.00	1,284.94	1,284.94	0.09	0.00	1,286.78

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.11	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	24.10	24.10	0.00	0.00	24.12
Total	0.01	0.01	0.11	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	24.10	24.10	0.00	0.00	24.12

3.5 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.08	7.59	5.70	0.01		0.32	0.32		0.32	0.32	0.00	1,284.94	1,284.94	0.09	0.00	1,286.78
Total	1.08	7.59	5.70	0.01	8.17	0.32	8.49	4.13	0.32	4.45	0.00	1,284.94	1,284.94	0.09	0.00	1,286.78

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.10	24.10	0.00	0.00	24.12
Total	0.01	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.10	24.10	0.00	0.00	24.12

3.5 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.02	6.94	5.60	0.01		0.29	0.29		0.29	0.29	0.00	1,289.87	1,289.87	0.08	0.00	1,291.61
Total	1.02	6.94	5.60	0.01	8.17	0.29	8.46	4.13	0.29	4.42	0.00	1,289.87	1,289.87	0.08	0.00	1,291.61

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.10	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	23.73	23.73	0.00	0.00	23.75
Total	0.01	0.01	0.10	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	23.73	23.73	0.00	0.00	23.75

3.5 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.02	6.94	5.60	0.01		0.29	0.29		0.29	0.29	0.00	1,289.87	1,289.87	0.08	0.00	1,291.61
Total	1.02	6.94	5.60	0.01	8.17	0.29	8.46	4.13	0.29	4.42	0.00	1,289.87	1,289.87	0.08	0.00	1,291.61

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.73	23.73	0.00	0.00	23.75
Total	0.01	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.73	23.73	0.00	0.00	23.75

3.5 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.96	6.30	5.47	0.01		0.26	0.26		0.26	0.26	0.00	1,284.94	1,284.94	0.08	0.00	1,286.57
Total	0.96	6.30	5.47	0.01	8.17	0.26	8.43	4.13	0.26	4.39	0.00	1,284.94	1,284.94	0.08	0.00	1,286.57

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	23.29	23.29	0.00	0.00	23.30
Total	0.01	0.01	0.09	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	23.29	23.29	0.00	0.00	23.30

3.5 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.96	6.30	5.47	0.01		0.26	0.26		0.26	0.26	0.00	1,284.94	1,284.94	0.08	0.00	1,286.57
Total	0.96	6.30	5.47	0.01	8.17	0.26	8.43	4.13	0.26	4.39	0.00	1,284.94	1,284.94	0.08	0.00	1,286.57

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.29	23.29	0.00	0.00	23.30
Total	0.01	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.29	23.29	0.00	0.00	23.30

3.5 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.91	5.71	5.35	0.01		0.23	0.23		0.23	0.23	0.00	1,280.02	1,280.02	0.07	0.00	1,281.55
Total	0.91	5.71	5.35	0.01	8.17	0.23	8.40	4.13	0.23	4.36	0.00	1,280.02	1,280.02	0.07	0.00	1,281.55

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	22.81	22.81	0.00	0.00	22.83
Total	0.01	0.01	0.09	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	22.81	22.81	0.00	0.00	22.83

3.5 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.91	5.71	5.35	0.01		0.23	0.23		0.23	0.23	0.00	1,280.02	1,280.02	0.07	0.00	1,281.55
Total	0.91	5.71	5.35	0.01	8.17	0.23	8.40	4.13	0.23	4.36	0.00	1,280.02	1,280.02	0.07	0.00	1,281.55

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.81	22.81	0.00	0.00	22.83
Total	0.01	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.81	22.81	0.00	0.00	22.83

3.5 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.63	3.78	3.83	0.01		0.15	0.15		0.15	0.15	0.00	930.48	930.48	0.05	0.00	931.54
Total	0.63	3.78	3.83	0.01	8.17	0.15	8.32	4.13	0.15	4.28	0.00	930.48	930.48	0.05	0.00	931.54

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.00	0.06	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	16.33	16.33	0.00	0.00	16.34
Total	0.01	0.00	0.06	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	16.33	16.33	0.00	0.00	16.34

3.5 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.17	0.00	8.17	4.13	0.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.63	3.78	3.83	0.01		0.15	0.15		0.15	0.15	0.00	930.48	930.48	0.05	0.00	931.54
Total	0.63	3.78	3.83	0.01	8.17	0.15	8.32	4.13	0.15	4.28	0.00	930.48	930.48	0.05	0.00	931.54

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.33	16.33	0.00	0.00	16.34
Total	0.01	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.33	16.33	0.00	0.00	16.34

3.6 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.31	2.12	1.53	0.00		0.13	0.13		0.13	0.13	0.00	241.86	241.86	0.03	0.00	242.40
Total	0.31	2.12	1.53	0.00		0.13	0.13		0.13	0.13	0.00	241.86	241.86	0.03	0.00	242.40

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.26	2.67	1.96	0.00	0.16	0.09	0.25	0.01	0.09	0.10	0.00	471.58	471.58	0.01	0.00	471.83
Worker	0.55	0.57	6.13	0.01	1.43	0.05	1.48	0.06	0.05	0.11	0.00	1,062.67	1,062.67	0.06	0.00	1,063.87
Total	0.81	3.24	8.09	0.01	1.59	0.14	1.73	0.07	0.14	0.21	0.00	1,534.25	1,534.25	0.07	0.00	1,535.70

3.6 Building Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.31	2.12	1.53	0.00		0.13	0.13		0.13	0.13	0.00	241.86	241.86	0.03	0.00	242.40
Total	0.31	2.12	1.53	0.00		0.13	0.13		0.13	0.13	0.00	241.86	241.86	0.03	0.00	242.40

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.26	2.67	1.96	0.00	0.01	0.09	0.10	0.01	0.09	0.10	0.00	471.58	471.58	0.01	0.00	471.83
Worker	0.55	0.57	6.13	0.01	0.06	0.05	0.11	0.06	0.05	0.11	0.00	1,062.67	1,062.67	0.06	0.00	1,063.87
Total	0.81	3.24	8.09	0.01	0.07	0.14	0.21	0.07	0.14	0.21	0.00	1,534.25	1,534.25	0.07	0.00	1,535.70

3.6 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.57	3.80	3.00	0.01		0.23	0.23		0.23	0.23	0.00	478.23	478.23	0.05	0.00	479.20
Total	0.57	3.80	3.00	0.01		0.23	0.23		0.23	0.23	0.00	478.23	478.23	0.05	0.00	479.20

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.47	4.79	3.57	0.01	0.32	0.16	0.48	0.03	0.16	0.18	0.00	935.52	935.52	0.02	0.00	935.97
Worker	1.03	1.02	11.16	0.02	2.82	0.10	2.92	0.12	0.10	0.22	0.00	2,054.45	2,054.45	0.10	0.00	2,056.65
Total	1.50	5.81	14.73	0.03	3.14	0.26	3.40	0.15	0.26	0.40	0.00	2,989.97	2,989.97	0.12	0.00	2,992.62

3.6 Building Construction - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.57	3.80	3.00	0.01		0.23	0.23		0.23	0.23	0.00	478.23	478.23	0.05	0.00	479.20
Total	0.57	3.80	3.00	0.01		0.23	0.23		0.23	0.23	0.00	478.23	478.23	0.05	0.00	479.20

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.47	4.79	3.57	0.01	0.03	0.16	0.18	0.03	0.16	0.18	0.00	935.52	935.52	0.02	0.00	935.97
Worker	1.03	1.02	11.16	0.02	0.12	0.10	0.22	0.12	0.10	0.22	0.00	2,054.45	2,054.45	0.10	0.00	2,056.65
Total	1.50	5.81	14.73	0.03	0.15	0.26	0.40	0.15	0.26	0.40	0.00	2,989.97	2,989.97	0.12	0.00	2,992.62

3.6 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.52	3.46	2.97	0.01		0.21	0.21		0.21	0.21	0.00	478.23	478.23	0.04	0.00	479.11
Total	0.52	3.46	2.97	0.01		0.21	0.21		0.21	0.21	0.00	478.23	478.23	0.04	0.00	479.11

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.43	4.39	3.31	0.01	0.32	0.14	0.46	0.03	0.14	0.17	0.00	937.14	937.14	0.02	0.00	937.55
Worker	0.97	0.93	10.30	0.02	2.82	0.10	2.92	0.12	0.10	0.22	0.00	1,997.40	1,997.40	0.10	0.00	1,999.43
Total	1.40	5.32	13.61	0.03	3.14	0.24	3.38	0.15	0.24	0.39	0.00	2,934.54	2,934.54	0.12	0.00	2,936.98

3.6 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.52	3.46	2.97	0.01		0.21	0.21		0.21	0.21	0.00	478.23	478.23	0.04	0.00	479.11
Total	0.52	3.46	2.97	0.01		0.21	0.21		0.21	0.21	0.00	478.23	478.23	0.04	0.00	479.11

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.43	4.39	3.31	0.01	0.03	0.14	0.17	0.03	0.14	0.17	0.00	937.14	937.14	0.02	0.00	937.55
Worker	0.97	0.93	10.30	0.02	0.12	0.10	0.22	0.12	0.10	0.22	0.00	1,997.40	1,997.40	0.10	0.00	1,999.43
Total	1.40	5.32	13.61	0.03	0.15	0.24	0.39	0.15	0.24	0.39	0.00	2,934.54	2,934.54	0.12	0.00	2,936.98

3.6 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.48	3.13	2.94	0.01		0.18	0.18		0.18	0.18	0.00	476.40	476.40	0.04	0.00	477.20
Total	0.48	3.13	2.94	0.01		0.18	0.18		0.18	0.18	0.00	476.40	476.40	0.04	0.00	477.20

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.40	4.05	3.09	0.01	0.32	0.13	0.45	0.03	0.13	0.16	0.00	936.10	936.10	0.02	0.00	936.48
Worker	0.92	0.85	9.49	0.02	2.81	0.10	2.91	0.12	0.10	0.22	0.00	1,946.66	1,946.66	0.09	0.00	1,948.56
Total	1.32	4.90	12.58	0.03	3.13	0.23	3.36	0.15	0.23	0.38	0.00	2,882.76	2,882.76	0.11	0.00	2,885.04

3.6 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.48	3.13	2.94	0.01		0.18	0.18		0.18	0.18	0.00	476.40	476.40	0.04	0.00	477.20
Total	0.48	3.13	2.94	0.01		0.18	0.18		0.18	0.18	0.00	476.40	476.40	0.04	0.00	477.20

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.40	4.05	3.09	0.01	0.03	0.13	0.16	0.03	0.13	0.16	0.00	936.10	936.10	0.02	0.00	936.48
Worker	0.92	0.85	9.49	0.02	0.12	0.10	0.22	0.12	0.10	0.22	0.00	1,946.66	1,946.66	0.09	0.00	1,948.56
Total	1.32	4.90	12.58	0.03	0.15	0.23	0.38	0.15	0.23	0.38	0.00	2,882.76	2,882.76	0.11	0.00	2,885.04

3.6 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.44	2.84	2.93	0.01		0.16	0.16		0.16	0.16	0.00	478.23	478.23	0.04	0.00	478.97
Total	0.44	2.84	2.93	0.01		0.16	0.16		0.16	0.16	0.00	478.23	478.23	0.04	0.00	478.97

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.37	3.78	2.90	0.01	0.32	0.12	0.44	0.01	0.11	0.12	0.00	942.15	942.15	0.02	0.00	942.50
Worker	0.87	0.78	8.83	0.02	2.82	0.10	2.92	0.04	0.09	0.14	0.00	1,913.08	1,913.08	0.08	0.00	1,914.85
Total	1.24	4.56	11.73	0.03	3.14	0.22	3.36	0.05	0.20	0.26	0.00	2,855.23	2,855.23	0.10	0.00	2,857.35

3.6 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.44	2.84	2.93	0.01		0.16	0.16		0.16	0.16	0.00	478.23	478.23	0.04	0.00	478.97
Total	0.44	2.84	2.93	0.01		0.16	0.16		0.16	0.16	0.00	478.23	478.23	0.04	0.00	478.97

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.37	3.78	2.90	0.01	0.03	0.12	0.15	0.01	0.11	0.12	0.00	942.15	942.15	0.02	0.00	942.50
Worker	0.87	0.78	8.83	0.02	0.12	0.10	0.22	0.04	0.09	0.14	0.00	1,913.08	1,913.08	0.08	0.00	1,914.85
Total	1.24	4.56	11.73	0.03	0.15	0.22	0.37	0.05	0.20	0.26	0.00	2,855.23	2,855.23	0.10	0.00	2,857.35

3.6 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.40	2.57	2.92	0.01		0.13	0.13		0.13	0.13	0.00	478.23	478.23	0.03	0.00	478.91
Total	0.40	2.57	2.92	0.01		0.13	0.13		0.13	0.13	0.00	478.23	478.23	0.03	0.00	478.91

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.35	3.54	2.71	0.01	0.32	0.11	0.43	0.01	0.10	0.11	0.00	944.55	944.55	0.02	0.00	944.88
Worker	0.83	0.72	8.23	0.02	2.82	0.10	2.92	0.04	0.09	0.14	0.00	1,874.82	1,874.82	0.08	0.00	1,876.49
Total	1.18	4.26	10.94	0.03	3.14	0.21	3.35	0.05	0.19	0.25	0.00	2,819.37	2,819.37	0.10	0.00	2,821.37

3.6 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.40	2.57	2.92	0.01		0.13	0.13		0.13	0.13	0.00	478.23	478.23	0.03	0.00	478.91
Total	0.40	2.57	2.92	0.01		0.13	0.13		0.13	0.13	0.00	478.23	478.23	0.03	0.00	478.91

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.35	3.54	2.71	0.01	0.03	0.11	0.14	0.01	0.10	0.11	0.00	944.55	944.55	0.02	0.00	944.88
Worker	0.83	0.72	8.23	0.02	0.12	0.10	0.22	0.04	0.09	0.14	0.00	1,874.82	1,874.82	0.08	0.00	1,876.49
Total	1.18	4.26	10.94	0.03	0.15	0.21	0.36	0.05	0.19	0.25	0.00	2,819.37	2,819.37	0.10	0.00	2,821.37

3.6 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.37	2.34	2.91	0.01		0.11	0.11		0.11	0.11	0.00	480.06	480.06	0.03	0.00	480.68
Total	0.37	2.34	2.91	0.01		0.11	0.11		0.11	0.11	0.00	480.06	480.06	0.03	0.00	480.68

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.33	3.36	2.55	0.01	0.32	0.10	0.43	0.01	0.09	0.10	0.00	950.42	950.42	0.01	0.00	950.73
Worker	0.80	0.67	7.72	0.02	2.83	0.10	2.93	0.04	0.09	0.14	0.00	1,846.32	1,846.32	0.08	0.00	1,847.90
Total	1.13	4.03	10.27	0.03	3.15	0.20	3.36	0.05	0.18	0.24	0.00	2,796.74	2,796.74	0.09	0.00	2,798.63

3.6 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.37	2.34	2.91	0.01		0.11	0.11		0.11	0.11	0.00	480.06	480.06	0.03	0.00	480.68
Total	0.37	2.34	2.91	0.01		0.11	0.11		0.11	0.11	0.00	480.06	480.06	0.03	0.00	480.68

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.33	3.36	2.55	0.01	0.03	0.10	0.13	0.01	0.09	0.10	0.00	950.42	950.42	0.01	0.00	950.73
Worker	0.80	0.67	7.72	0.02	0.12	0.10	0.22	0.04	0.09	0.14	0.00	1,846.32	1,846.32	0.08	0.00	1,847.90
Total	1.13	4.03	10.27	0.03	0.15	0.20	0.35	0.05	0.18	0.24	0.00	2,796.74	2,796.74	0.09	0.00	2,798.63

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.33	2.10	2.88	0.01		0.10	0.10		0.10	0.10	0.00	478.23	478.23	0.03	0.00	478.79
Total	0.33	2.10	2.88	0.01		0.10	0.10		0.10	0.10	0.00	478.23	478.23	0.03	0.00	478.79

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.31	3.17	2.40	0.01	0.32	0.09	0.42	0.01	0.09	0.10	0.00	948.88	948.88	0.01	0.00	949.17
Worker	0.77	0.62	7.25	0.02	2.82	0.10	2.92	0.04	0.10	0.14	0.00	1,811.58	1,811.58	0.07	0.00	1,813.08
Total	1.08	3.79	9.65	0.03	3.14	0.19	3.34	0.05	0.19	0.24	0.00	2,760.46	2,760.46	0.08	0.00	2,762.25

3.6 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.33	2.10	2.88	0.01		0.10	0.10		0.10	0.10	0.00	478.23	478.23	0.03	0.00	478.79
Total	0.33	2.10	2.88	0.01		0.10	0.10		0.10	0.10	0.00	478.23	478.23	0.03	0.00	478.79

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.31	3.17	2.40	0.01	0.03	0.09	0.12	0.01	0.09	0.10	0.00	948.88	948.88	0.01	0.00	949.17
Worker	0.77	0.62	7.25	0.02	0.12	0.10	0.22	0.04	0.10	0.14	0.00	1,811.58	1,811.58	0.07	0.00	1,813.08
Total	1.08	3.79	9.65	0.03	0.15	0.19	0.34	0.05	0.19	0.24	0.00	2,760.46	2,760.46	0.08	0.00	2,762.25

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.31	1.89	2.86	0.01		0.08	0.08		0.08	0.08	0.00	476.40	476.40	0.02	0.00	476.92
Total	0.31	1.89	2.86	0.01		0.08	0.08		0.08	0.08	0.00	476.40	476.40	0.02	0.00	476.92

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.29	3.01	2.26	0.01	0.32	0.09	0.41	0.01	0.08	0.09	0.00	947.28	947.28	0.01	0.00	947.55
Worker	0.74	0.57	6.80	0.02	2.81	0.10	2.91	0.04	0.09	0.14	0.00	1,774.99	1,774.99	0.07	0.00	1,776.41
Total	1.03	3.58	9.06	0.03	3.13	0.19	3.32	0.05	0.17	0.23	0.00	2,722.27	2,722.27	0.08	0.00	2,723.96

3.6 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.31	1.89	2.86	0.01		0.08	0.08		0.08	0.08	0.00	476.40	476.40	0.02	0.00	476.92
Total	0.31	1.89	2.86	0.01		0.08	0.08		0.08	0.08	0.00	476.40	476.40	0.02	0.00	476.92

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.29	3.01	2.26	0.01	0.03	0.09	0.11	0.01	0.08	0.09	0.00	947.28	947.28	0.01	0.00	947.55
Worker	0.74	0.57	6.80	0.02	0.12	0.10	0.22	0.04	0.09	0.14	0.00	1,774.99	1,774.99	0.07	0.00	1,776.41
Total	1.03	3.58	9.06	0.03	0.15	0.19	0.33	0.05	0.17	0.23	0.00	2,722.27	2,722.27	0.08	0.00	2,723.96

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.22	1.29	2.14	0.00		0.05	0.05		0.05	0.05	0.00	357.30	357.30	0.02	0.00	357.67
Total	0.22	1.29	2.14	0.00		0.05	0.05		0.05	0.05	0.00	357.30	357.30	0.02	0.00	357.67

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.21	2.17	1.62	0.01	0.24	0.06	0.30	0.01	0.06	0.06	0.00	711.94	711.94	0.01	0.00	712.13
Worker	0.53	0.40	4.81	0.02	2.11	0.08	2.18	0.03	0.07	0.10	0.00	1,310.66	1,310.66	0.05	0.00	1,311.68
Total	0.74	2.57	6.43	0.03	2.35	0.14	2.48	0.04	0.13	0.16	0.00	2,022.60	2,022.60	0.06	0.00	2,023.81

3.6 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.22	1.29	2.14	0.00		0.05	0.05		0.05	0.05	0.00	357.30	357.30	0.02	0.00	357.67
Total	0.22	1.29	2.14	0.00		0.05	0.05		0.05	0.05	0.00	357.30	357.30	0.02	0.00	357.67

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.21	2.17	1.62	0.01	0.02	0.06	0.08	0.01	0.06	0.06	0.00	711.94	711.94	0.01	0.00	712.13
Worker	0.53	0.40	4.81	0.02	0.09	0.08	0.16	0.03	0.07	0.10	0.00	1,310.66	1,310.66	0.05	0.00	1,311.68
Total	0.74	2.57	6.43	0.03	0.11	0.14	0.24	0.04	0.13	0.16	0.00	2,022.60	2,022.60	0.06	0.00	2,023.81

3.7 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.06	0.37	0.24	0.00		0.03	0.03		0.03	0.03	0.00	30.43	30.43	0.00	0.00	30.53
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.06	0.37	0.24	0.00		0.03	0.03		0.03	0.03	0.00	30.43	30.43	0.00	0.00	30.53

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.78	1.78	0.00	0.00	1.79
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.78	1.78	0.00	0.00	1.79

3.7 Paving - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.06	0.37	0.24	0.00		0.03	0.03		0.03	0.03	0.00	30.43	30.43	0.00	0.00	30.53
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.06	0.37	0.24	0.00		0.03	0.03		0.03	0.03	0.00	30.43	30.43	0.00	0.00	30.53

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.78	1.78	0.00	0.00	1.79
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.78	1.78	0.00	0.00	1.79

3.7 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.64	3.93	2.68	0.00		0.33	0.33		0.33	0.33	0.00	345.32	345.32	0.05	0.00	346.41
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.64	3.93	2.68	0.00		0.33	0.33		0.33	0.33	0.00	345.32	345.32	0.05	0.00	346.41

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.11	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	19.81	19.81	0.00	0.00	19.83
Total	0.01	0.01	0.11	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	19.81	19.81	0.00	0.00	19.83

3.7 Paving - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.64	3.93	2.68	0.00		0.33	0.33		0.33	0.33	0.00	345.32	345.32	0.05	0.00	346.41
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.64	3.93	2.68	0.00		0.33	0.33		0.33	0.33	0.00	345.32	345.32	0.05	0.00	346.41

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.81	19.81	0.00	0.00	19.83
Total	0.01	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.81	19.81	0.00	0.00	19.83

3.7 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.60	3.68	2.66	0.00		0.31	0.31		0.31	0.31	0.00	345.32	345.32	0.05	0.00	346.34
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.60	3.68	2.66	0.00		0.31	0.31		0.31	0.31	0.00	345.32	345.32	0.05	0.00	346.34

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.10	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	19.26	19.26	0.00	0.00	19.27
Total	0.01	0.01	0.10	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	19.26	19.26	0.00	0.00	19.27

3.7 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.60	3.68	2.66	0.00		0.31	0.31		0.31	0.31	0.00	345.32	345.32	0.05	0.00	346.34
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.60	3.68	2.66	0.00		0.31	0.31		0.31	0.31	0.00	345.32	345.32	0.05	0.00	346.34

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.26	19.26	0.00	0.00	19.27
Total	0.01	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.26	19.26	0.00	0.00	19.27

3.7 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.56	3.43	2.63	0.00		0.28	0.28		0.28	0.28	0.00	344.00	344.00	0.05	0.00	344.95
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.56	3.43	2.63	0.00		0.28	0.28		0.28	0.28	0.00	344.00	344.00	0.05	0.00	344.95

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	18.77	18.77	0.00	0.00	18.78
Total	0.01	0.01	0.09	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	18.77	18.77	0.00	0.00	18.78

3.7 Paving - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.56	3.43	2.63	0.00		0.28	0.28		0.28	0.28	0.00	344.00	344.00	0.05	0.00	344.95
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.56	3.43	2.63	0.00		0.28	0.28		0.28	0.28	0.00	344.00	344.00	0.05	0.00	344.95

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.77	18.77	0.00	0.00	18.78
Total	0.01	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.77	18.77	0.00	0.00	18.78

3.7 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.52	3.23	2.62	0.00		0.26	0.26		0.26	0.26	0.00	345.32	345.32	0.04	0.00	346.22
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.52	3.23	2.62	0.00		0.26	0.26		0.26	0.26	0.00	345.32	345.32	0.04	0.00	346.22

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	18.44	18.44	0.00	0.00	18.46
Total	0.01	0.01	0.09	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	18.44	18.44	0.00	0.00	18.46

3.7 Paving - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.52	3.23	2.62	0.00		0.26	0.26		0.26	0.26	0.00	345.32	345.32	0.04	0.00	346.22
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.52	3.23	2.62	0.00		0.26	0.26		0.26	0.26	0.00	345.32	345.32	0.04	0.00	346.22

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.44	18.44	0.00	0.00	18.46
Total	0.01	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.44	18.44	0.00	0.00	18.46

3.7 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.49	3.02	2.61	0.00		0.24	0.24		0.24	0.24	0.00	345.32	345.32	0.04	0.00	346.15
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.49	3.02	2.61	0.00		0.24	0.24		0.24	0.24	0.00	345.32	345.32	0.04	0.00	346.15

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.08	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	18.07	18.07	0.00	0.00	18.09
Total	0.01	0.01	0.08	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	18.07	18.07	0.00	0.00	18.09

3.7 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.49	3.02	2.61	0.00		0.24	0.24		0.24	0.24	0.00	345.32	345.32	0.04	0.00	346.15
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.49	3.02	2.61	0.00		0.24	0.24		0.24	0.24	0.00	345.32	345.32	0.04	0.00	346.15

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.07	18.07	0.00	0.00	18.09
Total	0.01	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.07	18.07	0.00	0.00	18.09

3.7 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.46	2.83	2.60	0.00		0.22	0.22		0.22	0.22	0.00	346.64	346.64	0.04	0.00	347.43
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.46	2.83	2.60	0.00		0.22	0.22		0.22	0.22	0.00	346.64	346.64	0.04	0.00	347.43

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.07	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	17.80	17.80	0.00	0.00	17.81
Total	0.01	0.01	0.07	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	17.80	17.80	0.00	0.00	17.81

3.7 Paving - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.46	2.83	2.60	0.00		0.22	0.22		0.22	0.22	0.00	346.64	346.64	0.04	0.00	347.43
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.46	2.83	2.60	0.00		0.22	0.22		0.22	0.22	0.00	346.64	346.64	0.04	0.00	347.43

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.80	17.80	0.00	0.00	17.81
Total	0.01	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.80	17.80	0.00	0.00	17.81

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.43	2.64	2.58	0.00		0.19	0.19		0.19	0.19	0.00	345.32	345.32	0.03	0.00	346.04
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.43	2.64	2.58	0.00		0.19	0.19		0.19	0.19	0.00	345.32	345.32	0.03	0.00	346.04

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.07	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	17.46	17.46	0.00	0.00	17.48
Total	0.01	0.01	0.07	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	17.46	17.46	0.00	0.00	17.48

3.7 Paving - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.43	2.64	2.58	0.00		0.19	0.19		0.19	0.19	0.00	345.32	345.32	0.03	0.00	346.04
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.43	2.64	2.58	0.00		0.19	0.19		0.19	0.19	0.00	345.32	345.32	0.03	0.00	346.04

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.46	17.46	0.00	0.00	17.48
Total	0.01	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.46	17.46	0.00	0.00	17.48

3.7 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.40	2.46	2.56	0.00		0.17	0.17		0.17	0.17	0.00	344.00	344.00	0.03	0.00	344.67
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.40	2.46	2.56	0.00		0.17	0.17		0.17	0.17	0.00	344.00	344.00	0.03	0.00	344.67

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.07	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	17.11	17.11	0.00	0.00	17.12
Total	0.01	0.01	0.07	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	17.11	17.11	0.00	0.00	17.12

3.7 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.40	2.46	2.56	0.00		0.17	0.17		0.17	0.17	0.00	344.00	344.00	0.03	0.00	344.67
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.40	2.46	2.56	0.00		0.17	0.17		0.17	0.17	0.00	344.00	344.00	0.03	0.00	344.67

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.11	17.11	0.00	0.00	17.12
Total	0.01	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.11	17.11	0.00	0.00	17.12

3.7 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.37	2.30	2.54	0.00		0.16	0.16		0.16	0.16	0.00	344.00	344.00	0.03	0.00	344.63
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.37	2.30	2.54	0.00		0.16	0.16		0.16	0.16	0.00	344.00	344.00	0.03	0.00	344.63

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.06	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	16.85	16.85	0.00	0.00	16.86
Total	0.01	0.01	0.06	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	16.85	16.85	0.00	0.00	16.86

3.7 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.37	2.30	2.54	0.00		0.16	0.16		0.16	0.16	0.00	344.00	344.00	0.03	0.00	344.63
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.37	2.30	2.54	0.00		0.16	0.16		0.16	0.16	0.00	344.00	344.00	0.03	0.00	344.63

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.85	16.85	0.00	0.00	16.86
Total	0.01	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.85	16.85	0.00	0.00	16.86

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	19.94	39.07	206.10	0.37	38.65	1.78	40.44	1.44	1.78	3.22	0.00	32,680.01	32,680.01	1.35	0.00	32,708.44
Unmitigated	19.94	39.07	206.10	0.37	38.65	1.78	40.44	1.44	1.78	3.22	0.00	32,680.01	32,680.01	1.35	0.00	32,708.44
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	7,229.23	7,854.52	6658.79	24,103,587	24,103,587
Apartments Mid Rise	3,275.23	3,558.52	3016.79	10,920,221	10,920,221
Single Family Housing	10,842.81	11,420.64	9936.41	35,956,454	35,956,454
Total	21,347.27	22,833.68	19,611.99	70,980,262	70,980,262

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments High Rise	12.70	7.00	9.50	40.20	19.20	40.60
Apartments Mid Rise	12.70	7.00	9.50	40.20	19.20	40.60

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Single Family Housing	12.70	7.00	9.50	40.20	19.20	40.60

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	3,686.76	3,686.76	0.17	0.06	3,709.86
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	3,755.09	3,755.09	0.17	0.06	3,778.63
NaturalGas Mitigated	0.33	2.82	1.20	0.02		0.00	0.23		0.00	0.23	0.00	3,270.29	3,270.29	0.06	0.06	3,290.20
NaturalGas Unmitigated	0.36	3.09	1.31	0.02		0.00	0.25		0.00	0.25	0.00	3,575.09	3,575.09	0.07	0.07	3,596.85
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments High Rise	1.31347e+007	0.07	0.61	0.26	0.00		0.00	0.05		0.00	0.05	0.00	700.92	700.92	0.01	0.01	705.18
Apartments Mid Rise	5.95072e+006	0.03	0.27	0.12	0.00		0.00	0.02		0.00	0.02	0.00	317.55	317.55	0.01	0.01	319.49
Single Family Housing	4.79093e+007	0.26	2.21	0.94	0.01		0.00	0.18		0.00	0.18	0.00	2,556.62	2,556.62	0.05	0.05	2,572.18
Total		0.36	3.09	1.32	0.01		0.00	0.25		0.00	0.25	0.00	3,575.09	3,575.09	0.07	0.07	3,596.85

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments High Rise	1.20384e+007	0.06	0.55	0.24	0.00		0.00	0.04		0.00	0.04	0.00	642.42	642.42	0.01	0.01	646.33
Apartments Mid Rise	5.45405e+006	0.03	0.25	0.11	0.00		0.00	0.02		0.00	0.02	0.00	291.05	291.05	0.01	0.01	292.82
Single Family Housing	4.37905e+007	0.24	2.02	0.86	0.01		0.00	0.16		0.00	0.16	0.00	2,336.83	2,336.83	0.04	0.04	2,351.05
Total		0.33	2.82	1.21	0.01		0.00	0.22		0.00	0.22	0.00	3,270.30	3,270.30	0.06	0.06	3,290.20

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments High Rise	3.8527e+006					1,120.64	0.05	0.02	1,127.66
Apartments Mid Rise	1.74548e+006					507.71	0.02	0.01	510.89
Single Family Housing	7.31167e+006					2,126.75	0.10	0.04	2,140.08
Total						3,755.10	0.17	0.07	3,778.63

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments High Rise	3.68987e+006					1,073.28	0.05	0.02	1,080.00
Apartments Mid Rise	1.72986e+006					503.17	0.02	0.01	506.32
Single Family Housing	7.25517e+006					2,110.32	0.10	0.04	2,123.54
Total						3,686.77	0.17	0.07	3,709.86

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	24.98	0.73	59.68	0.03		0.00	2.91		0.00	2.91	289.66	1,737.71	2,027.37	0.96	0.04	2,059.90
Unmitigated	24.98	0.73	59.68	0.03		0.00	2.91		0.00	2.91	289.66	1,737.71	2,027.37	0.96	0.04	2,059.90
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.42					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	13.13					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	9.04	0.23	17.14	0.03		0.00	2.68		0.00	2.68	289.66	1,669.88	1,959.54	0.89	0.04	1,990.55
Landscaping	1.39	0.50	42.54	0.00		0.00	0.23		0.00	0.23	0.00	67.83	67.83	0.07	0.00	69.35
Total	24.98	0.73	59.68	0.03		0.00	2.91		0.00	2.91	289.66	1,737.71	2,027.37	0.96	0.04	2,059.90

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.42					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	13.13					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	9.04	0.23	17.14	0.03		0.00	2.68		0.00	2.68	289.66	1,669.88	1,959.54	0.89	0.04	1,990.55
Landscaping	1.39	0.50	42.54	0.00		0.00	0.23		0.00	0.23	0.00	67.83	67.83	0.07	0.00	69.35
Total	24.98	0.73	59.68	0.03		0.00	2.91		0.00	2.91	289.66	1,737.71	2,027.37	0.96	0.04	2,059.90

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					901.92	4.38	0.12	1,032.03
Unmitigated					1,036.90	5.47	0.15	1,198.97
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments High Rise	71.474 / 45.0597					417.12	2.20	0.06	482.32
Apartments Mid Rise	32.3816 / 20.4145					188.98	1.00	0.03	218.51
Single Family Housing	73.8195 / 46.5384					430.81	2.27	0.06	498.14
Total						1,036.91	5.47	0.15	1,198.97

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments High Rise	57.1792 / 45.0597					362.82	1.76	0.05	415.16
Apartments Mid Rise	25.9052 / 20.4145					164.38	0.80	0.02	188.09
Single Family Housing	59.0556 / 46.5384					374.72	1.82	0.05	428.78
Total						901.92	4.38	0.12	1,032.03

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					209.25	12.37	0.00	468.94
Unmitigated					418.49	24.73	0.00	937.87
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments High Rise	504.62					102.43	6.05	0.00	229.56
Apartments Mid Rise	228.62					46.41	2.74	0.00	104.00
Single Family Housing	1328.4					269.65	15.94	0.00	604.31
Total						418.49	24.73	0.00	937.87

8.2 Waste by Land Use

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments High Rise	252.31					51.22	3.03	0.00	114.78
Apartments Mid Rise	114.31					23.20	1.37	0.00	52.00
Single Family Housing	664.2					134.83	7.97	0.00	302.16
Total						209.25	12.37	0.00	468.94

9.0 Vegetation

Greenhouse Gas Emission Worksheet
N2O Mobile Emissions

Lake Forest

From CalEEMod Vehicle Fleet Mix Output:

Annual VMT: 70,980,262

Vehicle Type	Percent Type	CH4 Emission Factor (g/mile)*	CH4 Emission (g/mile)**	N2O Emission Factor (g/mile)*	N2O Emission (g/mile)**
Light Auto	52.8%	0.04	0.02112	0.04	0.02112
Light Truck < 3750 lbs	7.0%	0.05	0.0035	0.06	0.0042
Light Truck 3751-5750 lbs	23.0%	0.05	0.0115	0.06	0.0138
Med Truck 5751-8500 lbs	9.0%	0.12	0.0108	0.2	0.018
Lite-Heavy Truck 8501-10,000 lbs	2.0%	0.12	0.0024	0.2	0.004
Lite-Heavy Truck 10,001-14,000 lbs	1.0%	0.09	0.0009	0.125	0.00125
Med-Heavy Truck 14,001-33,000 lbs	1.6%	0.06	0.00096	0.05	0.0008
Heavy-Heavy Truck 33,001-60,000 lbs	2.6%	0.06	0.00156	0.05	0.0013
Other Bus	0.1%	0.06	0.00006	0.05	0.00005
Urban Bus	0.2%	0.06	0.00012	0.05	0.0001
Motorcycle	0.4%	0.09	0.00036	0.01	0.00004
School Bus	0.1%	0.06	0.000048	0.05	0.00004
Motor Home	0.2%	0.09	0.00018	0.125	0.00025
Total	100.0%		0.053508		0.06495

Total Emissions (metric tons) =

Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

CH4 21 GWP
N2O 310 GWP
1 ton (short, US) = 0.90718474 metric ton

Annual Mobile Emissions:

	Total Emissions	Total CO2e units
N2O Emissions:	4.6102 metric tons N2O	1,429 metric tons CO2e
	Project Total:	1,429 metric tons CO2e

References

* from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile).
in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
Assume Model year 2000-present, gasoline fueled.

** Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.

*** From URBEMIS 2007 results for mobile sources

Existing GHG Regulations

International Regulations. The United States is, and has been, a participant in the United Nations Framework Convention on Climate Change (UNFCCC) since it was produced by the United Nations in 1992. The UNFCCC is an international environmental treaty with the objective of, “stabilization of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.” This is generally understood to be achieved by stabilizing global GHG concentrations between 350 and 400 ppm, in order to limit the global average temperature increases between 2 and 2.4°C above pre-industrial levels (IPCC 2007). The UNFCCC itself does not set limits on GHG emissions for individual countries or enforcement mechanisms. Instead, the treaty provides for updates, called “protocols,” that would identify mandatory emissions limits.

Five years later, the UNFCCC brought nations together again to draft the *Kyoto Protocol* (1997). The Kyoto Protocol established commitments for industrialized nations to reduce their collective emissions of six GHGs (CO₂, CH₄, N₂O, SF₆, HFCs, and PFCs) to 5.2 percent below 1990 levels by 2012. The United States is a signatory of the Kyoto Protocol, but Congress has not ratified it and the United States has not bound itself to the Protocol’s commitments (UNFCCC, 2007). The first commitment period of the Kyoto Protocol ended in 2012. Governments, including 38 industrialized countries, agreed to a second commitment period of the Kyoto Protocol beginning January 1, 2013 and ending either on December 31, 2017 or December 31, 2020, to be decided by the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at its seventeenth session (UNFCCC, November 2011).

In Durban (17th session of the Conference of the Parties in Durban, South Africa, December 2011), governments decided to adopt a universal legal agreement on climate change as soon as possible, but not later than 2015. Work will begin on this immediately under a new group called the Ad Hoc Working Group on the Durban Platform for Enhanced Action. Progress was also made regarding the creation of a Green Climate Fund (GCF) for which a management framework was adopted (UNFCCC, December 2011; United Nations, September 2012).

Federal Regulations. The United States is currently using a voluntary and incentive-based approach toward emissions reductions in lieu of the Kyoto Protocol’s mandatory framework. The Climate Change Technology Program (CCTP) is a multi-agency research and development coordination effort (led by the Secretaries of Energy and Commerce) that is charged with carrying out the President’s National Climate Change Technology Initiative (U.S. EPA, December 2007). However, the voluntary approach to address climate change and greenhouse gas emissions may be changing. The United States Supreme Court in *Massachusetts et al. v. Environmental Protection Agency et al.* ([2007] 549 U.S. 05-1120) held that the U.S. EPA has the authority to regulate motor-vehicle GHG emissions under the federal Clean Air Act.

The U.S. EPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines, and requires annual reporting of emissions. The first annual reports for these sources were due in March 2011.

On May 13, 2010, the U.S. EPA issued a Final Rule that took effect on January 2, 2011, setting a threshold of 75,000 million tons (MT) CO₂e per year for GHG emissions. New and existing industrial facilities that meet or exceed that threshold will require a permit after that date. On November 10,

2010, the U.S. EPA published the “PSD and Title V Permitting Guidance for Greenhouse Gases.” The U.S. EPA’s guidance document is directed at state agencies responsible for air pollution permits under the Federal Clean Air Act to help them understand how to implement GHG reduction requirements while mitigating costs for industry. It is expected that most states will use the U.S. EPA’s new guidelines when processing new air pollution permits for power plants, oil refineries, cement manufacturing, and other large pollution point sources.

On January 2, 2011, the U.S. EPA implemented the first phase of the Tailoring Rule for GHG emissions Title V Permitting. Under the first phase of the Tailoring Rule, all new sources of emissions are subject to GHG Title V permitting if they are otherwise subject to Title V for another air pollutant and they emit at least 75,000 MT CO₂e per year. Under Phase 1, no sources were required to obtain a Title V permit solely due to GHG emissions. Phase 2 of the Tailoring Rule went into effect July 1, 2011. At that time new sources were subject to GHG Title V permitting if the source emits 100,000 MT CO₂e per year, or they are otherwise subject to Title V permitting for another pollutant and emit at least 75,000 MT CO₂e per year.

California Regulations. Assembly Bill (AB) 1493 (2002), referred to as “Pavley,” requires ARB to develop and adopt regulations to achieve “the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles.” On June 30, 2009, EPA granted the waiver of Clean Air Act preemption to California for its greenhouse gas emission standards for motor vehicles beginning with the 2009 model year. Pavley I took effect for model years starting in 2009 to 2016 and Pavley II, which is now referred to as “LEV (Low Emission Vehicle) III GHG” will cover 2017 to 2025. Fleet average emission standards would reach 22 per cent reduction by 2012 and 30 per cent by 2016.

In 2005, former Governor Schwarzenegger issued Executive Order (EO) S-3-05, establishing statewide GHG emissions reduction targets. EO S-3-05 provides that by 2010, emissions shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80 percent of 1990 levels (CalEPA, 2006). In response to EO S-3-05, CalEPA created the Climate Action Team (CAT), which in March 2006 published the Climate Action Team Report (the “2006 CAT Report”) (CalEPA, 2006). The 2006 CAT Report identified a recommended list of strategies that the state could pursue to reduce GHG emissions. These are strategies that could be implemented by various state agencies to ensure that the emission reduction targets in EO S-3-05 are met and can be met with existing authority of the state agencies. The strategies include the reduction of passenger and light duty truck emissions, the reduction of idling times for diesel trucks, an overhaul of shipping technology/infrastructure, increased use of alternative fuels, increased recycling, and landfill methane capture, etc.

California’s major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the “California Global Warming Solutions Act of 2006,” signed into law in 2006. AB 32 codifies the Statewide goal of reducing GHG emissions to 1990 levels by 2020 (essentially a 15% reduction below 2005 emission levels; the same requirement as under S-3-05), and requires ARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires ARB to adopt regulations to require reporting and verification of statewide GHG emissions.

After completing a comprehensive review and update process, the ARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO₂e. The Scoping Plan was approved by ARB on December 11, 2008, and includes measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. The Scoping Plan includes a range of GHG reduction actions that may include direct regulations, alternative

compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms.

Executive Order S-01-07 was enacted on January 18, 2007. The order mandates that a Low Carbon Fuel Standard ("LCFS") for transportation fuels be established for California to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in California Environmental Quality Act (CEQA) documents. In March 2010, the California Resources Agency (Resources Agency) adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

ARB Resolution 07-54 establishes 25,000 metric tons of GHG emissions as the threshold for identifying the largest stationary emission sources in California for purposes of requiring the annual reporting of emissions. This threshold is just over 0.005 percent of California's total inventory of GHG emissions for 2004.

Senate Bill (SB) 375, signed in August 2008, enhances the State's ability to reach AB 32 goals by directing ARB to develop regional greenhouse gas emission reduction targets to be achieved from vehicles for 2020 and 2035. In addition, SB 375 directs each of the state's 18 major Metropolitan Planning Organizations (MPO) to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On September 23, 2010, ARB adopted final regional targets for reducing greenhouse gas emissions from 2005 levels by 2020 and 2035. The Southern California Association of Governments (SCAG) was assigned targets of an 8% reduction in GHGs from transportation sources by 2020 and a 13% reduction in GHGs from transportation sources by 2035. In the SCAG region, SB 375 also provides the option for the coordinated development of subregional plans by the subregional councils of governments and the county transportation commissions to meet SB 375 requirements."

In April 2011, Governor Brown signed SB 2X requiring California to generate 33% of its electricity from renewable energy by 2020.

For more information on the Senate and Assembly bills, Executive Orders, and reports discussed above, and to view reports and research referenced above, please refer to the following websites: www.climatechange.ca.gov and <http://www.arb.ca.gov/cc/cc.htm>.

California Environmental Quality Act. Pursuant to the requirements of SB 97, the Resources Agency has adopted amendments to the *State CEQA Guidelines* for the feasible mitigation of GHG emissions or the effects of GHG emissions. As noted previously, the adopted *CEQA Guidelines* provide general regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. To date, the Bay Area Air Quality Management District (BAAQMD), the South Coast Air Quality Management District (SCAQMD), the San Luis Obispo Air Pollution Control District (SLOAPCD), and the San Joaquin Air Pollution Control District (SJVAPCD) have adopted quantitative significance thresholds for GHGs.

Local Regulations and CEQA Requirements. Pursuant to the requirements of SB 97, the Resources Agency adopted amendments to the State CEQA Guidelines for the feasible mitigation of

GHG emissions and analysis of the effects of GHG emissions. The adopted CEQA Guidelines provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. To date, the Bay Area Air Quality Management District (BAAQMD), the South Coast Air Quality Management District (SCAQMD), and the San Joaquin Air Pollution Control District (SJVAPCD) have adopted significance thresholds for GHGs. The SCAQMD threshold, which was adopted in December 2008, considers emissions of over 10,000 metric tons CO₂e /year to be significant. However, the SCAQMD's threshold applies only to stationary sources and is expressly intended to apply only when the SCAQMD is the CEQA lead agency. Although not yet adopted, staff of the SCAQMD has proposed a plan-based threshold of 6.6 metric tons CO₂e per service population (defined to include both residents and employees) per year for use in the South Coast region (SCAQMD, "Proposed Tier 4 Performance Standards, September 2010). Note that no air district has the power to establish definitive thresholds that will completely relieve a lead agency of the obligation to determine significance on a case-by-case basis for a specific project.

APPENDIX B

COMMENTS AND RESPONSES

In accordance with the *California Environmental Quality Act Guidelines* (CEQA Guidelines) Section 15073 the City of Lake Forest, as the lead agency, provided a 30 day public review period for the Draft Initial Study and Negative Declaration (IS/ND) (State Clearinghouse No. 2013101042). The public review and comment period ran from October 14, 2013 to November 13, 2013. CEQA Guidelines Section 15073(e) requires that the lead agency notify in writing any public agency which comments on the proposed negative declaration. This response to comments appendix has been provided to each commenter and becomes part of the final negative declaration for the project.

Four public agencies provided comments on the Draft IS/ND. No individuals or organizations provided comments. A list of public agencies that provided comments on the Draft IS/ND is presented below. Each comment has been assigned a number. Individual comments within each letter have been numbered so that comments can be cross-referenced with responses. The comment letters and corresponding responses are found on the following pages.

Commenter	Letter Number
City of Irvine - David R. Law, Senior Planner (October 31, 2013)	1
California Public Utilities Commission – Ken Chiang, Utilities Engineer (November 7, 2013)	2
California Department of Transportation – Maureen El Harake, Branch Chief (November 7, 2013)	3
State Clearinghouse – Scott Morgan, Director (November 13, 2013)	4

COMMENT LETTER 1



Community Development

cityofirvine.org

City of Irvine, One Civic Center Plaza, P.O. Box 19575, Irvine, California 92623-9575

(949) 724-6000

October 31, 2013

RECEIVED

NOV 04 2013

CITY OF LAKE FOREST
DEVELOPMENT SERVICES DEPT

Ms. Cheryl Kuta
Planning Manager
City of Lake Forest
Development Services Department
25550 Commercentre Drive, Suite 100
Lake Forest, CA 92630

**Subject: Notice of Intent to adopt a Mitigated Negative Declaration (MND)
and Initial Study for Housing Element Update**

Dear Ms. Kuta:

Thank you for the opportunity to comment on the Notice of Intent to adopt a MND and Initial Study for the Housing Element update. City of Irvine staff has reviewed the submittal and has no comments at this time. Thank you for the opportunity to review and comment on the project.

If you have any questions, please contact me at 949-724-6314 or by email at dlaw@cityofirvine.org.

Sincerely,

David R. Law, AICP
Senior Planner

cc: Bill Jacobs, Principal Planner (via email)

1-1

COMMENT LETTER 2

STATE OF CALIFORNIA

EDMUND G. BROWN JR., Governor

PUBLIC UTILITIES COMMISSION

320 WEST 4TH STREET, SUITE 500
LOS ANGELES, CA 90013
(213) 576-7065



November 7, 2013

Cheryl Kuta
City of Lake Forest
25550 Commercentre Drive, Suite 100
Lake Forest, CA 92630

Dear Ms. Kuta:

Re: SCH 2013101042 Lake Forest 2013-2021 Housing Element - DND

The California Public Utilities Commission (Commission) has jurisdiction over the safety of highway-rail crossings (crossings) in California. The California Public Utilities Code requires Commission approval for the construction or alteration of crossings and grants the Commission exclusive power on the design, alteration, and closure of crossings in California. The Commission Rail Crossings Engineering Section (RCES) is in receipt of the draft *Negative Declaration (DND)* for the proposed City of Lake Forest (City) 2013-2021 Housing Element project.

The project area includes active railroad tracks. RCES recommends that the City add language to the Housing Element so that any future development adjacent to or near the railroad/light rail right-of-way (ROW) is planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at at-grade crossings. This includes considering pedestrian circulation patterns or destinations with respect to railroad ROW and compliance with the Americans with Disabilities Act. Mitigation measures to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade crossings due to increase in traffic volumes and continuous vandal resistant fencing or other appropriate barriers to limit the access of trespassers onto the railroad ROW.

If you have any questions in this matter, please contact me at (213) 576-7076,
ykc@cpuc.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ken Chiang".

Ken Chiang, P.E.
Utilities Engineer
Rail Crossings Engineering Section
Safety and Enforcement Division

C: State Clearinghouse

2-1

COMMENT LETTER 3

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION

District 12
 3337 Michelson Drive, Suite 380
 Irvine, CA 92612-8894
 Tel: (949) 724-2241
 Fax: (949) 724-2392



*Flex your power!
 Be energy efficient!*

FAX & MAIL

November 7, 2013

Cheryl Kuta
 City of Lake Forest
 25550 Commercenter Drive, Suite 100
 Lake Forest, California 92630

File: IGR/CEQA
 SCH#: 2013101042
 Log #: 2516-A
 I-5, SR-241

Dear Mrs. Kuta,

Thank you for the opportunity to review and comment on the **Draft Initial Study and Negative Declaration (IS/ND) for the City of Lake Forest 2013-2021 General Plan Housing Element Update**. The Housing Element is required to identify and analyze existing and projected housing needs, and include statements of the City's goals, policies, quantified objectives, and programs for the preservation, improvement, and development of housing. State law requires the jurisdictions within Southern California Association of Governments (SCAG) region update their Housing Elements for 2013-2012 planning period. The current adopted Housing Element covers the period 2008-2014. The nearest State routes to this project are I-5 and SR-241.

The Department of Transportation (Department) is a responsible agency on this project and we have the following comments:

- | | |
|--|-----|
| 1. The General Plan and its elements should include language requiring the City to develop policies stressing coordination between the City and the Department early in the land use and transportation planning process. | 3-1 |
| 2. The Department supports General Plans and elements that foster a more efficient land use pattern that (a) supports improved mobility and reduced dependency on single-occupant vehicle trips, (b) accommodates an adequate supply of housing for all incomes, (c) reduces impacts on valuable habitat, productive farmland, and air quality, (d) increases resource use efficiency, and (e) results in safe and vibrant neighborhoods. The Department recognizes that non-motorized travel is a vital element of the transportation system and therefore, encourages communities make pedestrian and bicycle activity possible, thus expanding transportation options, and creating a streetscape that better serves a range of users – pedestrians, bicyclists, transit riders, and automobiles. | 3-2 |
| 3. The General Plan and its elements should acknowledge the Departments' standard of maintaining a target Level of Service (LOS) at the transition between LOS D and LOS E on State highway facilities. Any degradation of the LOS past this threshold should be mitigated to bring the facility back to the baseline/existing condition. For future projects that may impact State facilities, we recommend the City work with the Department on thresholds of | 3-3 |

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significance related to all State facilities that experience unacceptable LOS (worse than the operating standard of LOS D).	
4. Mitigation measures are required for any significant impacts to the State Highway System to bring to a less than significant condition. If certain mitigation is considered not feasible, other measures must be pursued to mitigate the Project's significant impacts.	3-4
5. The Department's Traffic Operations Branch requests all applicants to use the method outlined in the latest version of the Highway Capacity Manual (HCM) when analyzing traffic impacts on State Transportation Facilities. The use of HCM is preferred by the Department because it is an operational analysis as opposed to the Intersection Capacity Utilization (ICU) method, which is a planning analysis. In the case of projects that have direct impacts on State Facilities, the Department recommends that the traffic impact analysis be based on HCM method. Should the project require an encroachment permit, Traffic Operations may find the Traffic Impact Study based on ICU methodology inadequate resulting in possible delay or denial of a permit by the Department. All input sheets, assumptions and volumes on State Facilities including ramps and intersection analysis should be submitted to the Department for review and approval. The EIR should include appropriate mitigation measures to offset any potential impacts.	3-5
The traffic impact on the state transportation system should be evaluated based on the Department's Guide for the Preparation of Traffic Impact Studies which is available at: http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tisguide.pdf	
6. For I-5 and SR-241, HCM analysis should be applied to the closest access point from a project site onto these two routes as well as intersections upstream and downstream to that access point. The analysis should include the ramp intersections as well as intersections upstream and downstream to a given ramp intersection. Queue Analysis should also be conducted for off-ramps.	3-6
7. The Department has interest in working cooperatively to establish a Traffic Impact Fee (TIF) program to mitigate traffic impacts on a "fair share" basis. Local development project applicants would pay their "fair share" to an established fund for future transportation improvements on the State Highway System. If there is an existing TIF program, it can be amended to include mitigation for the state highway system or a new TIF program may be considered. The Department requests the opportunity to participate in the TIF for state highway improvements development process.	3-7
8. For cumulative significant traffic impacts to the State Highway System, the City should work with the Department to develop a menu of feasible improvement projects that can help mitigate impacts to a less than significant level.	3-8
9. The Department has an established methodology standard used to properly calculate equitable project share contribution. This can be found in Appendix B of the Department's Guide for the Preparation of Traffic Impact Studies.	3-9
10. For CEQA purposes, the Department does not consider the Congestion Management Plan (CMP) significance threshold of an increase in v/c more than 1% for ramps or 3% for mainline appropriate. For analysis of intersections connecting to State facilities, ramps and freeway mainline, we recommend early coordination occur to discuss level of significance thresholds related to traffic and circulation.	3-10

"Caltrans improves mobility across California"

Please continue to keep us informed of this project and any future developments, which could potentially impact the State Transportation Facilities. If you have any questions or need to contact us, please do not hesitate to call Marlon Regisford at (949) 724-2241.

Sincerely,

A handwritten signature in black ink, appearing to read "Maureen El Harake", with a long horizontal flourish extending to the right.

MAUREEN EL HARAKE

Branch Chief, Regional-Community-Transit Planning
District 12

COMMENT LETTER 4



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA

Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

RECEIVED

NOV 18 2013

CITY OF LAKE FOREST
DEVELOPMENT SERVICES DEPT

November 13, 2013

Cheryl Kuta
City of Lake Forest
25550 Commerce Drive
Lake Forest, CA 92630

Subject: 2013-2021 Housing Element
SCH#: 2013101042

Dear Cheryl Kuta:

The State Clearinghouse submitted the above named Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on November 12, 2013, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

4-1

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 8044 SACRAMENTO, CALIFORNIA 95812-8044
TEL (916) 445-0613 FAX (916) 823-3618 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2013101042
Project Title 2013-2021 Housing Element
Lead Agency Lake Forest, City of

Type Neg Negative Declaration
Description California Government Code Section 65302(c) mandates that each city and county shall include a Housing Element in its General Plan, and that the Housing Element be updated periodically to reflect current conditions and legal requirements. State law requires that jurisdictions within the Southern California Association of Governments (SCAG) region, which includes Lake Forest, update their Housing Elements for the 2013-2021 planning period.

Lead Agency Contact

Name Cheryl Kuta
Agency City of Lake Forest
Phone 949 461 3479 **Fax**
email
Address 25560 Commercentre Drive
City Lake Forest **State** CA **Zip** 92630

Project Location

County Orange
City Lake Forest
Region
Cross Streets
Lat / Long
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways
Airports
Railways
Waterways
Schools
Land Use

Project Issues

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 12; Department of Housing and Community Development; Air Resources Board; Regional Water Quality Control Board, Region 8; Native American Heritage Commission; Public Utilities Commission

Date Received 10/14/2013 **Start of Review** 10/14/2013 **End of Review** 11/12/2013

Note: Blanks in data fields result from insufficient information provided by lead agency.

Responses

Letter 1: City of Irvine

Response 1: The comment is acknowledged. No environmental issues are raised by the Commenter, so no additional response is required.

Letter 2: Public Utilities Commission

Response 1: The LOSSAN rail corridor traverses the City of Lake Forest. No at-grade crossings occur within the City. Additionally, the Housing Element residential sites inventory does not identify property adjacent to or near the railroad right-of-way. The Commenter does not identify significant environmental impacts which would require implementation of the suggested mitigation measures. Therefore no changes to the IS/ND are required.

Letter 3: Caltrans

Response 1: The 2013-2021 General Plan Housing Element Update is a planning document prepared for purposes of compliance with California Government Code section 65302, subsection (c). Its sole focus is to identify and analyze existing and projected housing needs, and include statements of the City's goals, policies, quantified objectives, and programs for the preservation, improvement, and development of housing. The Housing Element Update does not amend other elements of the General Plan. In other words, the Housing Element Update is not part of a comprehensive update to the City's entire General Plan. Consequently, the Initial Study / Negative Declaration ("IS/ND") for the Housing Element Update project does not analyze impacts to or from policies in other sections of the General Plan (such as land use and circulation).

Nevertheless, the City's Five-Year Strategic Plan calls for a comprehensive General Plan Update. The comprehensive General Plan Update is currently scheduled to commence during the 2015-2016 fiscal year. The City will notify Caltrans of the process for participating in the General Plan Update and will comprehensively address comments, such as those contained within Comment 1, at that time.

Response 2: This comment addresses issues related to the Circulation Element. Neither the Circulation Element nor its goals and policies are part of the project evaluated in the IS/ND. Please refer to Response 1, above.

The 2008 adoption of the Opportunities Study Area ("OSA") General Plan Amendments ("GPAs") included the City's last update to the Circulation Element. When the OSA GPAs were adopted and the related Program EIR ("PEIR") certified, all alternative modes of transportation were considered to link the various planning areas together. All of those alternative transit modes, including trails, bike lanes, and sidewalks, have been

factored in to planning decisions made-to-date on projects that fall within the OSA. These planning decisions have achieved a healthy balance between competing modes of transportation.

Response 3: This comment addresses issues related to the Circulation Element, particularly the appropriate Level of Service threshold. Neither the Circulation Element nor its goals and policies are part of the project that is evaluated in the IS/ND. Please refer to Response 1, above.

Response 4: The comment states the requirement that significant impacts be mitigated. The City acknowledges the mandate in the California Environmental Quality Act to mitigate significant impacts. However, as reflected in the IS/ND the proposed project would not have any significant environmental effects related to transportation and traffic, or otherwise. Therefore, the City is not obligated to impose any mitigation measures for the proposed project.

Response 5: This comment requests that the City evaluate impacts to State Transportation Facilities according to the Highway Capacity Manual (HCM) as opposed to the Intersection Capacity Utilization (ICU) methodology. As explained in the IS/ND, the proposed Housing Element Update would not have impacts to any State Transportation Facilities.

Moreover, the level of service methodology utilized in the Housing Element Update IS/ND is consistent with the lead agency's accepted methods of determining significant impacts. It would be inappropriate for the City to utilize any methodology other than the ICU methodology for several reasons.

First, the IS/ND tiers from the OSA PEIR. According to State CEQA Guidelines, section 15168(c) "subsequent activities in [a] program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared." (Emphasis added.) "Where a lead agency is using the tiering process in connection with an EIR for a large-scale planning approval . . . the development of detailed, site-specific information may not be feasible but can be deferred, in many instances, until such time as the lead agency prepares a future environmental document" in connection with site-specific development. (State CEQA Guidelines § 15152(c).) As explained in the IS/ND, the City is tiering its CEQA analysis for the Housing Element Update off of, among other documents, the OSA PEIR.

As explained in the OSA PEIR, the OSA PEIR traffic analysis was based on the ICU methodology.⁹ The City relied upon the conclusions in the PEIR and subsequent environmental analysis for each project to determine that no new impacts would occur

⁹ The OSA PEIR was certified on June 3, 2008. In accordance with State CEQA Guidelines section 15094, on June 4, 2008, the City filed a Notice of Determination to inform the public of its decision to certify the OSA PEIR and to approve the OSA project. No action or proceeding to challenge the OSA PEIR was filed within the applicable statute of limitations, or approximately July 5, 2008. Thus, in accordance with Public Resources Code section 21167.2, the OSA PEIR is *presumed* to comply with CEQA. Thus, to the extent that the commenter has concerns about the scope of the OSA PEIR, those concerns are now moot.

To use a different methodology at this time would result in an indirect comparison and would not provide substantial evidence to support the conclusions in the IS/ND.

Second, the City's local regulations require the use of the ICU methodology. The City's General Plan, LFTM Ordinance, and the City's Local CEQA Thresholds of Significance all require that the City utilize the ICU methodology for purposes of evaluating traffic impacts of projects proposed within the City's jurisdiction. The City cannot ignore its existing regulations and require the use of a methodology that it has not adopted.

It should be noted that a lead agency is responsible for determining whether an adverse environmental effect identified in an EIR should be classified as "significant" or "less than significant". (State CEQA Guidelines § 15064(b).) Moreover, the lead agency has discretion to formulate standards of significance for use in an EIR. (*Eureka Citizens for Responsible Gov't. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Mira Mar Mobile Comm't'y v. City of Oceanside* (2004) 119 Cal.App.4th 477.) To that end, State CEQA Guidelines section 15064.7 encourages lead agencies to adopt and publish "thresholds of significance" for use in determining whether environmental impacts are significant. Once thresholds are established, an impact that complies with the applicable threshold will "normally" be found insignificant and an impact that does not comply with the applicable threshold will "normally" be found significant. (State CEQA Guidelines § 15064.7(a).) Therefore, it is against the City's Local CEQA Thresholds of Significance that the City has evaluated the potential traffic impacts of the proposed project.

While the City understands that Caltrans' preference for the use of the HCM methodology, it would not be appropriate to apply that methodology here. The traffic impact analysis performed to date comports with the City's existing standards for traffic studies. Based on the existing analysis, the proposed project would not result in any new or more significant impacts than were previously disclosed in the OSA PEIR and subsequent environmental documents prepared for each of the OSA projects approved to date.

Lastly, to the extent that housing resources identified within the Housing Element Update are developed, any future development is required to complete a CEQA analysis to identify any site-specific impacts, including traffic impacts.

Response 6: The Housing Element Update would not authorize site specific development. Instead, the sole focus of Housing Element Update is to identify housing needs and potential resources. As explained in the project description, the vacant sites identified for housing are those that were called out in the City's OSA PEIR. Please refer to Response 1, above. As such, a study of impacts to Interstate 5 or State Route 241 would not be appropriate at this time.

Regarding particular issues of methodology, please refer to Response 5, above. Notwithstanding the foregoing, the certified OSA PEIR analyzed the effects of the projects included within the OSA on the Interstate 5 and SR-241 and concluded that the OSA (inclusive of the sites identified in the Housing Element Update as sites that can accommodate the City's RHNA allocation) and cumulative development would cause

five segments (I-5 north of El Toro Road [a.m. and p.m. peak hour], I-5 north of Alicia Parkway [a.m. and p.m. peak hour], and SR-241 north of Los Alisos Boulevard [a.m. peak hour]) to operate below standards. However, no freeway mainline segments were forecast to be significantly impacted by the OSA (inclusive of the sites identified in the Housing Element Update as sites that can accommodate the City's RHNA allocation) under the year 2030 conditions compared to the 2030 [then] General Plan Scenario. (Refer to page 3.14-53, Table 3.14-16, 2030 Proposed Project Freeway/Tollway Ramp LOS Summary, of the OSA PEIR.) The OSA PEIR also analyzed off-ramps and found that no freeway ramps would be negatively impacted as compared to the 2030 [then] General Plan Scenario.

The proposed Housing Element Update is consistent with the development concept described and analyzed in the OSA PEIR. The OSA PEIR concluded that a less than significant impact would result in this regard. Thus, because the proposed project is consistent with that analyzed under the OSA PEIR, impacts to freeway mainlines are therefore no different or more severe than previously disclosed.

Based on the peak-hour ramp performance criteria and impact thresholds discussed within the OSA PEIR, no freeway ramps or queuing are forecast to be significantly impacted by the development envisioned under the OSA based on year 2030 conditions when compared to either existing conditions or to the General Plan Scenario. In fact, implementation of the OSA (inclusive of the sites identified in the Housing Element Update as sites that can accommodate the City's RHNA allocation) would eliminate impacts to five ramps which would occur under the 2030 General Plan Scenario. Therefore, these impacts would not be different from or more significant than previously disclosed. No additional mitigation is necessary.

Response 7: The City of Lake Forest has an established Traffic Impact Fee program to mitigate traffic impacts on a "fair share" basis. The program is known as the Lake Forest Transportation Mitigation ("LFTM") Program. The LFTM Program was established in connection with the Opportunities Study General Plan Update. The LFTM Program identifies mitigation measures for the intersection locations where significant impacts are anticipated with buildout of the OSA projects.

All development projects are required to comply with the LFTM Program (see Lake Forest Municipal Code, Chapter 7.19) for facilities where the site-specific development would have either a direct or cumulative project impact. Pursuant to the City's Municipal Code Chapter 7.19, the Director of Public Works/City Engineer would verify each development project's consistency with the LFTM Program. At buildout of each of the OSA projects, the project-generated traffic operations would not exceed the capacity of the existing circulation system. Impacts would be reduced to less than significant levels with implementation of the LFTM Program mitigation measures. The Housing Element Update does not alter the project input assumptions that were used to develop the Lake Forest Traffic Mitigation Fee Program. Therefore, an additional fee program would not be justifiable at this time.

It should also be noted that the City may also use an additional source of funding for these improvements through the City of Irvine's North Irvine Transportation Mitigation (NITM) Program to account for regional cumulative impacts.

Response 8: This comment suggests that the City should work with Caltrans to formulate mitigation measures to reduce cumulative impacts to a less than significant level. As reflected in the IS/ND, the proposed project would not have traffic impacts, cumulative or direct, that would require mitigation. As such, no mitigation measures are necessary and none have been imposed.

Response 9: This comment encourages the use of the HCM methodology for analyzing traffic impacts. The City relies on the ICU methodology for its traffic analyses. Please refer to Response 7, above.

Response 10: Please refer to Responses 5 and 6, above. As described above, the City utilizes the ICU methodology to analyze traffic impacts. The ICU methodology is the prescribed method used by the City, and has been applied in the OSA Program EIR, LFTM Ordinance and City General Plan, as well as the Orange County Congestion Management Program.

Letter 4: State Clearinghouse

Response 1: This comment indicates that the State Clearinghouse submitted the Draft IS/ND to selected State agencies for review and that the comment period for the Draft IS/ND concluded on November 12, 2013. The comment indicates that the City complied with the public review requirements pursuant to CEQA. As such, the letter does not provide specific comments regarding information presented in the Draft IS/ND, and no further response is necessary. The comment also indicates that letters from responsible agencies are enclosed. Responses to those letters (from the Public Utilities Commission and Caltrans) are provided in this appendix.